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California Regional Water Quality Control Board Central Valley Region



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ORDER NO. R5-2005-0155 NPDES NO. CA0081795

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	United States Department of the Interior, National Park Service, Yosemite National Park
Name of Facility	Wawona Wastewater Treatment Facility (WWTF)
Facility Address	4004 Chilnualna Falls Road Wawona, CA 95389 Mariposa County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Disinfected tertiary municipal wastewater	37°, 32', 30" N	119°, 39', 19" W	South Fork Merced River
002	Disinfected tertiary municipal wastewater	37°, 32', 30" N	119°, 39', 00" W	Wawona Golf Course/Groundwater

This Order was adopted by the Regional Board on:	21 October 2005
This Order shall become effective on:	21 October 2005
This Order shall expire on:	21 October 2010
The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 99-137 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the federal CWA, and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

I, Thomas R. Pinkos, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 21 October 2005.

THOMAS R. PINKOS, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 5, CENTRAL VALLEY REGION**

**ORDER NO. R5-2005-0155
NPDES NO. CA0081795**

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I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	United States Department of the Interior, National Park Service, Yosemite National Park
Name of Facility	Wawona Wastewater Treatment Facility (WWTF)
Facility Address	4004 Chilnualna Falls Road Wawona, CA 95389 Mariposa County
Facility Contact, Title, and Phone	Paul J. Laymon, Utilities Facility Manager, (209) 379-1077
Mailing Address	P.O. Box 577 Yosemite National Park, CA 95389
Type of Facility	Municipal Wastewater Treatment Plant
Facility Design Flow	0.105 million gallons per day (mgd)

II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Regional Board), finds:

- A. **Background.** United States Department of the Interior, National Park Service, Yosemite National Park (hereinafter "Discharger"), is currently discharging under Waste Discharge Requirements Order No. 99-137, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081795. The Discharger submitted a Report of Waste Discharge, dated 8 September 2004 and applied for a NPDES permit renewal to discharge up to 0.288 million gallons per day (mgd) of treated wastewater from the Wawona Wastewater Treatment Facility (WWTF). The application was deemed complete on 8 October 2004.
- B. **Facility Description.** The Discharger owns and operates the Wawona WWTF. The WWTF is a Publicly Owned Treatment Facility or POTW within the meaning of the Federal Clean Water Act and implementing regulations. The WWTF consists of an equalization tank, activated sludge treatment system, coagulant and polymer injections, rapid mixing, flocculation, final sedimentation, sand filtration, alum injection to remove phosphorous, and chlorination/dechlorination. Effluent is chlorinated and pH balanced before it is pumped to two aboveground storage tanks providing a total capacity of five million gallons and additional chlorine contact time. Treated wastewater is intermittently discharged from Discharge 001 to the South Fork of the Merced River, a water of the United States, within the South Fork Merced Hydrologic Area (537.40). In addition, treated wastewater is blended with river water in the storage tanks and used to irrigate the Wawona Golf Course (Discharge 002, see table on page 1 of this Order). Attachment B provides a topographic map of the area around the WWTF. Attachment C provides a flow schematic of the WWTF.
- C. **Legal Authorities.** This Order is issued pursuant to Section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA Section 402.

- D. **Background and Rationale for Requirements.** The Regional Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through H contain background information and detailed rationale for Order requirements and are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.
- E. **California Environmental Quality Act (CEQA):**
1. The action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with Section 13389 of the CWC.
 2. The action to update waste discharge requirements for the existing land discharge (Discharge 002) is exempt from the provisions of CEQA, in accordance with Title 14, CCR, Section 15301 (existing facility).
- F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on tertiary treatment or equivalent requirements that meet both the technology-based secondary treatment standards for POTWs and protect the beneficial uses of the receiving waters. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA Section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.
- H. **Water Quality Control Plans.** The Regional Board adopted a Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Fourth Edition (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the sources of the Merced River, including the South Fork, are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	South Fork of the Merced River	<u>Existing:</u> Agricultural supply (AGR); hydropower generation (POW); water contact recreation (REC-1); noncontact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD). <u>Potential:</u> Municipal and domestic water supply (MUN)
002	Groundwater (Wawona Golf Course Discharge)	MUN, AGR, industrial service supply (IND), industrial process supply (PRO).

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
- J. **State Implementation Policy.** On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP was amended by State Board on February 24, 2005. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.
- K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the permit must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does include compliance schedules and interim effluent limitations. A detailed discussion of the basis for the compliance schedules and interim effluent limitations is included in the Fact Sheet, Attachment F.
- L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an anti-degradation policy consistent with the federal policy. The State Board established California's anti-degradation policy in State Board Resolution No. 68-16, which incorporates the requirements of the federal anti-degradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet, Attachment F, the permitted discharge is consistent with the anti-degradation provision of 40 CFR § 131.12 and State Board Resolution No. 68-16.
- M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- N. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- O. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Board has also included in this Order special provisions applicable to the Discharger. A detailed rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

- P. **Notification of Interested Parties.** The Regional Board has notified the discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.
- Q. **Consideration of Public Comment.** The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.
- R. **Applicable Plans, Policies, and Regulations.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- S. **Finding for No More Stringent than Federal Law.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal Clean Water Act. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on flow, BOD, TSS, settleable solids, total coliform, turbidity, filtration rate, and total residual chlorine. Restrictions on flow, BOD, TSS, settleable solids, total coliform, turbidity, filtration rate, and total residual chlorine are no more stringent than required by the Clean Water Act. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 1, 2001. Beneficial uses and water quality objectives contained in the Basin Plan which were used in the development of water quality-based effluent limitations were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the Clean Water Act and the applicable water quality standards for purposes of the Clean Water Act.

III. DISCHARGE PROHIBITIONS

- A. Discharge of wastewater at a location or in a manner different from that described in the Findings is prohibited.
 - B. The by-pass or overflow of wastes is prohibited, except as allowed by Standard Provision I.A.7 of Attachment D, Federal Standard Provisions.
 - C. Discharge or treatment that creates a nuisance as defined in Section 13050 of the California Water Code is prohibited.
 - D. Discharge to the South Fork of the Merced River is prohibited unless the ratio of river flow to wastewater discharge is 150:1 or greater.
 - E. Discharge to the South Fork of the Merced River is prohibited during the six months between June 1 and November 30.
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IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations

- a. The discharge of disinfected tertiary effluent shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Locations M-001 and M-002 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	0.105 ¹	--	0.288 ²	--	--
BOD 5-day @ 20°C	mg/L	10	15	20		
	lbs/day	8.7	13	17	--	--
	%removal	90	--	--	--	--
Total Suspended Solids	mg/L	10	15	20	--	--
	lbs/day	8.7	13	17	--	--
	%removal	90	--	--	--	--
Settleable Solids	ml/L	0.1	--	0.1	--	--
Total Phosphorous	mg/L	0.5	0.75	1	--	--
	lbs/day	0.44	0.66	0.87	--	--
pH	standard units	--	--	--	6.5	8.5
Total Copper	µg/L	0.80	--	1.6	--	--
	lbs/day	7.0x10 ⁻⁴	--	1.4x10 ⁻³	--	--

1. Monthly influent flow, as measured by the influent flow meter.

2. Compliance shall be determined at Monitoring Location M-001 for Maximum Daily Flow.

- b. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed (7-sample median). The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.
- c. The turbidity in the effluent from the filtration unit and in the influent to the chlorination unit shall not exceed a daily average of 2 turbidity units and shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period, and shall not exceed 10 turbidity units at any time.
- d. The maximum filtration rate shall not exceed 5 gpm/ft².

- e. The effluent total residual chlorine at Monitoring Location M-001 shall not exceed a 4-day average concentration of 0.01 mg/L, and shall not exceed a 1-hour average concentration of 0.02 mg/L.
- f. Survival of aquatic organisms in 96-hour bioassays of undiluted waste at Monitoring Location M-001 shall be no less than:
 - Minimum for any one bioassay - - - - -70%
 - Median for any three or more consecutive bioassays - - - - 90%

2. Interim Effluent Limitations

- a. During the period beginning **21 October 2005** and ending in the shortest time possible as approved by the Executive Officer, but in no case later than **21 October 2010**, the discharge of disinfected tertiary effluent shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location M-002 as described in the attached Monitoring and Reporting Program (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated above.

Constituent	Units	Interim Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Copper ¹	µg/L	--	--	488	--	--
	lbs/day	--	--	0.43	--	--

1. These limitations apply only if the Discharger complies with Provision VI.C.4 Task (a), and the Executive Officer establishes an alternate deadline for compliance as set forth therein. Otherwise, Final Effluent Limitations IV.A.1.a for total copper shall govern.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Discharge Point 002

- Beginning **21 October 2005**, the discharge of disinfected tertiary reclaimed water shall maintain compliance with the following limitations at Discharge Point 002, with compliance measured at Monitoring Location M-002 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Reclamation Specifications				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	0.105 ¹	--	--	--	--
BOD 5-day @ 20°C	mg/L	10	15	20		
	lbs/day	8.7	13	17	--	--
	%removal	90	--	--	--	--
Total Suspended Solids	mg/L	10	15	20	--	--
	lbs/day	8.7	13	17	--	--
	%removal	90	--	--	--	--
Settleable Solids	ml/L	0.1	--	0.1	--	--
Total Phosphorous	mg/L	0.5	0.75	1	--	--
	lbs/day	0.44	0.66	0.87	--	--
pH	standard units	--	--	--	6.5	8.5

1. Monthly average dry weather influent flow, as measured by the influent flow meter.

- The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed (7-day median). The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.
- The turbidity in the effluent from the filtration unit and in the influent to the chlorination unit shall not exceed a daily average of 2 turbidity units and shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period, and shall not exceed 10 turbidity units at any time.
- The maximum filtration rate shall not exceed 5 gpm/ft².
- Use of recycled water shall comply with all the terms and conditions of the most current Title 22 regulations.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in the South Fork of the Merced River:

1. Bacteria: The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
2. Dissolved Oxygen: Concentrations of dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass, or the 95th percentile concentration to fall below 75 percent of saturation.
3. Oil and Grease: Oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.
4. Color: Discoloration that causes nuisance or adversely affects beneficial uses.
5. pH: The ambient pH to be depressed below 6.5, nor raised above 8.5, nor changes in normal ambient pH levels to be exceeded by more than 0.5 units.
6. Temperature: The natural receiving water temperature to increase more than 5°F.
7. Settleable Matter: Substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
8. Radioactivity: Radionuclides to be present in concentrations that are harmful to human, plant, animal or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life. Concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations.
9. Toxicity: Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.
10. Biostimulatory Substances: Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
11. Floating Material: Floating material in amounts that cause nuisance or adversely affect beneficial uses.
12. Sediment: Suspended sediment load and suspended sediment discharge rate alteration in such a manner to cause nuisance or adversely affect beneficial uses.
13. Suspended Material: Suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
14. Taste and Order: Taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.

15. Turbidity: Changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity attributable to controllable water quality factors to exceed the following:

- a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
- b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
- c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
- d. More than 10 percent where natural turbidity is greater than 100 NTUs.

16. Pesticides:

- a. Pesticides in individual or combined concentrations that adversely affect beneficial uses.
- b. Pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.
- c. Total identifiable persistent chlorinated hydrocarbon pesticides in concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the Executive Officer.
- d. Concentrations exceeding those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 C.F.R. Section 131.12.)
- e. Concentrations exceeding the lowest levels technically and economically achievable.
- f. Concentrations exceeding the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
- g. Concentrations of thiobencarb in excess of 1.0 mg/L

B. Groundwater Limitations

Neither the WWTF nor the recycling of wastewater shall cause underlying groundwater to contain waste constituents in concentrations greater than background water quality unaffected by waste sources.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

In accordance with 40 CFR Section 123.25(a)(12), Regional Board enforcement of this permit will occur under the provisions established in Sections 13385, 13386, and 13387 of the CWC, as they are as stringent or more stringent than those in 40 CFR Sections 122.41(a)(2), 122.41(a)(3), 122.41(j)(5), and 122.41(k)(2).

2. **Regional Board Standard Provisions.** The Discharger shall comply with the following provisions:
 - a. If the Discharger's WWTF is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.

- b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
- i. violation of any term or condition contained in this Order;
 - ii. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 - iv. a material change in the character, location, or volume of discharge.

The causes for modification include:

- i. New regulations. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- ii. Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
- iii. Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Board may review and revise this Order at any time upon application of any affected person or the Regional Board's own motion.

- c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Regional Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

- d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
- i. contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
 - ii. controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

- e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- f. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.
- g. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological

waste is prohibited.

- h. A copy of this Order shall be maintained at the WWTF and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- i. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the CWC, Section 13050.
- j. Safeguard to electric power failure:
 - i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, failure of electric power, the discharge shall comply with the terms and conditions of this Order.
 - ii. Upon written request by the Regional Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Regional Board.
 - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Regional Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Regional Board that the existing safeguards are inadequate, provide to the Regional Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Regional Board, become a condition of this Order.
- k. The Discharger, upon written request of the Regional Board, shall file with the Regional Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under VI.A.2.j.

The technical report shall:

- i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
- ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
- iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Regional Board, after review of the technical report, may establish conditions, which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

- I. The Discharger shall file with the Regional Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:
 - i. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.
 - ii. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.
 - iii. Significantly changing the method of treatment.
 - iv. Increasing the discharge flow beyond that specified in the Order.
- m. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Regional Board by January 31. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Regional Board may extend the time for submitting the report.
- n. The Discharger shall submit technical reports as directed by the Executive Officer.
- o. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Regional Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Board.

Unless otherwise specified, all metals shall be reported as Total Metals.

Unless otherwise specified, all bioassays shall be performed in the following manner:

- i. Acute bioassays shall be performed in accordance with guidelines approved by the Regional Board and the Department of Fish and Game or in accordance with methods described in USEPA's manual for measuring acute toxicity of effluents (EPA-821-R-02-012 and subsequent amendments).
 - ii. Short-term chronic bioassays shall be performed in accordance with USEPA guidelines (EPA-821-R-02-013 and subsequent amendments).
- p. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Regional Board and USEPA.).
 - q. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.

- r. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- s. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.
- t. The Discharger shall file with the Regional Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.
- u. The results of all monitoring required by this Order shall be reported to the Regional Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.
- v. Upon written request of the Regional Board, the Discharger shall submit a summary monitoring report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
- w. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or be imprisoned for not more than two years per violation, or by both.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the Monitoring and Reporting Program, in Attachment E of this Order, and future revisions thereto.

C. Special Provisions

1. Re-opener Provisions

- a. Upon adoption of any applicable water quality standard for receiving waters by the Regional Board or the State Board pursuant to the CWA and regulations adopted thereunder, this permit may be reopened and receiving water limitations added.
- b. If chronic toxicity testing specified in Section VI.C.2.a indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, this Order shall be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic toxicity water quality objective is adopted by the State Board, this Order may be reopened and a limitation based on that objective included.
- c. If after review of effluent monitoring results or the study results specified in Sections VI.C.2.b or VI.C.2.c, it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective, this Order will be reopened and effluent limitations added for the subject constituents.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. The Discharger shall conduct the chronic toxicity testing specified in the Monitoring and Reporting Program. If the testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger shall submit a workplan to conduct a Toxicity Reduction Evaluation (TRE) and, after Regional Board evaluation, conduct the TRE.
- b. On February 27, 2001 the Discharger was directed under section 13267 of the CWC to conduct a receiving water and effluent priority pollutant monitoring study in accordance with the requirements of section 1.2 of the SIP. The Discharger sampled the effluent for most priority pollutants, but has not sampled the receiving water. The Discharger shall comply with the following time schedule in conducting a study of these constituents potential effect in surface waters:

<u>Task</u>	<u>Description</u>	<u>Due Date</u>
a.	Submit Workplan and Time Schedule to sample the effluent once, at Monitoring Location M-002, and receiving water twice for pollutants listed in Attachment H of this Order	By 30 June 2006
b.	Begin Sampling	Within 30 days of Executive Officer Approval of Task a
c.	Complete Sampling	Within 90 days of Executive Officer Approval of Task a
d.	Submit Report	Within 30 days of completion of Task c

The Discharger shall perform the priority pollutant monitoring specified in the time schedule above in addition to the priority pollutant monitoring specified the Monitoring and Reporting Program (Attachment E, Section IX.A). The Discharger shall submit to the Regional Board on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board by letter when it returns to compliance with the time schedule.

- c. On February 27, 2001 the Discharger was directed under section 13267 of the CWC to conduct an effluent dioxin monitoring study in accordance with the requirements of section 1.2 of the SIP. The Discharger has not conducted the required dioxin monitoring. The Discharger shall comply with the following time schedule in conducting a study of these constituents potential effect in surface waters:

<u>Task</u>	<u>Description</u>	<u>Due Date</u>
a.	Submit Workplan and Time Schedule to sample the effluent, at Monitoring Location M-002, for the presence of the 17 dioxin congeners (listed in Section 3, Table 4 of the SIP) once during dry weather and once during wet weather	By 30 June 2006
b.	Begin Sampling	Within 30 days of Executive Officer Approval of Task a

c.	Complete Sampling	Within one year of Executive Officer Approval of Task a
d.	Submit Sampling Report	Within 30 days of completion of Task c

The Discharger shall submit to the Regional Board on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Board by letter when it returns to compliance with the time schedule.

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Compliance Schedules

Section IV.C.3 of the attached Fact Sheet (Attachment F) indicates that copper concentrations in the discharge have a reasonable potential to cause or contribute to an in stream excursion above water quality objectives. The Discharger shall comply with the following:

<u>Task</u>	<u>Description</u>	<u>Due Date</u>
a.	Submit a technical report containing a compliance schedule justification sufficient to satisfy SIP Section 2.1, paragraph 3. The report shall include: (1) documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream; (2) documentation of source control measures and/or pollution minimization measures efforts currently underway or completed; (3) a proposal, including an implementation schedule, for additional or future source control measures, pollutant minimization actions, or waste treatment (i.e. facility upgrades or operational modifications); and (4) a demonstration that the proposed schedule is short as possible.	By 1 January 2006
b.	If approved, begin implementation of the items identified in Task a, above. If rejected, comply immediately with Final Effluent Limitations IV.A.1.a.	Within 30 days of approval or rejection of the technical report by the Executive Officer.
c.	Submit Quarterly Progress Reports	1st day of the second month following the close of each calendar quarter.
d.	Comply fully with Final Effluent Limitations IV.A.1.a.	By the deadline approved by the Executive Officer but no later than 21 October 2010

5. Construction, Operation and Maintenance Specifications

a. WWTF

- i. The treatment and disposal facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
- ii. The Discharger shall maximize, consistent with Construction, Operation and Maintenance Specification VI.C.5.b.xiii, reclamation of wastewater so that discharges to the river occur only when irrigation of the golf course is not necessary (snow or saturated soil conditions) and storage capacity has been reached.
- iii. All wastewater discharged shall be oxidized, coagulated, filtered, and disinfected, or equivalent treatment provided.
- iv. The chlorine disinfection process following filtration shall provide a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.

b. Reclamation Site – Wawona Golf Course

- i. Use of reclaimed water shall be limited to the Wawona Golf Course (hereafter designated reclamation area).
- ii. Reclaimed water used for irrigation shall be managed to prevent breeding of mosquitoes.
- iii. No irrigation with reclaimed water shall take place within 50 feet of any domestic water supply well.
- iv. No impoundment of reclaimed water shall occur within 100 feet of any domestic water supply well.
- v. Any irrigation runoff shall be confined to the reclaimed water use area.
- vi. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.
- vii. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
- viii. All use areas where reclaimed water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECLAIMED WATER - DO NOT DRINK". Each sign shall display an international symbol similar to that shown in Attachment G.
- ix. Except as allowed under Section 7604 of Title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any reclaimed water system and any separate system conveying potable water.
- x. The portions of the reclaimed water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the reclaimed water piping system in areas subject to public access.

- xi. Irrigation of the designated reclamation area shall occur between 9:00 pm and 6:00 am, as weather permits. Hand watering of the golf course, with a hose, using reclaimed water in conjunction with typical irrigation and irrigation system testing activities may be permitted during the day, provided that applications are supervised by appropriate golf course personnel and all golfers, pedestrians, and other members of the general public are precluded from entering irrigated areas until all applied reclaimed water has infiltrated the soil. Hand watering does not include watering of golf course areas by manually operating the irrigation system - watering using such practices is prohibited.
- xii. Workers shall be informed of the potential health hazards involved with contact or ingestion of reclaimed water, and shall be educated regarding proper hygienic procedures to ensure personal and public safety.
- xiii. Application of reclaimed water to the reclamation area shall not exceed what is reasonably necessary for the grass, soil, climate, and management system (i.e., generally accepted agronomic rates).
- xiv. Reclaimed water controllers, valves, etc., shall be affixed with reclaimed water warning signs, and the quick couplers and sprinkler heads shall be of a type, or secured in a manner that permits operation by authorized personnel only.

6. Special Provisions for Municipal Facilities

- a. The Discharger shall prepare and implement a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan by **21 October 2006**.

- b. Sludge Requirements:

Sludge in this document means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the WWTF. Biosolids refers to sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agriculture, horticulture, and land reclamation activities.

- i. Sludge and solid waste shall be removed from screens, sumps, ponds, clarifiers, etc. as needed to ensure optimal plant operation.
- ii. Treatment and storage of sludge generated by the WWTF shall be confined to the WWTF property and conducted in a manner that precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations.
- iii. Any storage of residual sludge, solid waste, and biosolids on property of the WWTF shall be temporary and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations.
- iv. Residual sludge, biosolids, and solid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, WWTF, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.

- v. Use and disposal of biosolids should comply with the self-implementing federal regulations of 40 CFR 503, which are subject to enforcement by the USEPA, not the Regional Board. If during the life of this Order the State accepts primacy for implementation of 40 CFR 503, the Regional Board may also initiate enforcement where appropriate.
- c. Pretreatment Program
 - i. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that the following incompatible wastes are not introduced to the treatment system, where incompatible wastes are:
 - a. Wastes which create a fire or explosion hazard in the treatment works;
 - b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5, unless the works is specially designed to accommodate such wastes.
 - c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;
 - d. Any waste, including oxygen demanding pollutants (BOD, etc.), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;
 - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40 °C (104 °F), unless the treatment works is designed to accommodate such heat;
 - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at points pre-designated by the Discharger.
 - ii. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that indirect discharges do not introduce pollutants into the sewerage system that, either alone or in conjunction with a discharge or discharges from other sources:
 - a. Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order, or
 - b. Inhibit or disrupt treatment processes, treatment system operations, or sludge processes, use, or disposal and either cause a violation of this Order or prevent sludge use or disposal in accordance with this Order.

7. Other Special Provisions

- a. The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
- b. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).

- c. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision E.2, Attachment D, and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

- d. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

- A. Average Monthly Effluent Limitation (AMEL).** If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.
- B. Average Weekly Effluent Limitation (AWEL).** If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.
- C. Maximum Daily Effluent Limitation (MDEL).** If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

- D. Instantaneous Minimum Effluent Limitation.** If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).
- E. Instantaneous Maximum Effluent Limitation.** If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).
- F. Coliform Effluent Limitations.** If the median value, calculated using the results from samples collected within the previous seven days is greater than the maximum seven day median for coliform (MPN of 2.2 per 100 mL), a violation will be flagged and the discharger will be considered out of compliance. If more than one single sample measurement within a 30-day period is greater than an MPN of 23 per 100 mL, a violation will be flagged for each additional exceedance and the discharger will be considered out of compliance. If any sample measurement is greater than an MPN of 240 per 100 mL, a violation will be flagged and the discharger will be considered out of compliance.
- G. 4-day Average Effluent Limitation.** If the average of daily discharges over the past 4-days exceeds the 4-day average effluent limitation for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each of the 4-days for that parameter, resulting in 4 days of non-compliance. If only a single sample is taken during a 4-day period and the analytical result for that sample exceeds the 4-day average effluent limitation, the discharger will be considered out of compliance for the 4-day period.
- H. Water Quality-Based Effluent Limitations.**

In accordance with Section 2.4.5 of the SIP, compliance with water quality-based effluent limitations shall be determined as follows:

1. Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
2. When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - a. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

- c. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a pollutant minimization plan (PMP), the Discharger shall not be deemed out of compliance.

ATTACHMENT A – DEFINITIONS

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Daily Discharge: the total mass of the constituent discharged over the calendar day for a constituent with limitations expressed in units of mass or the arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

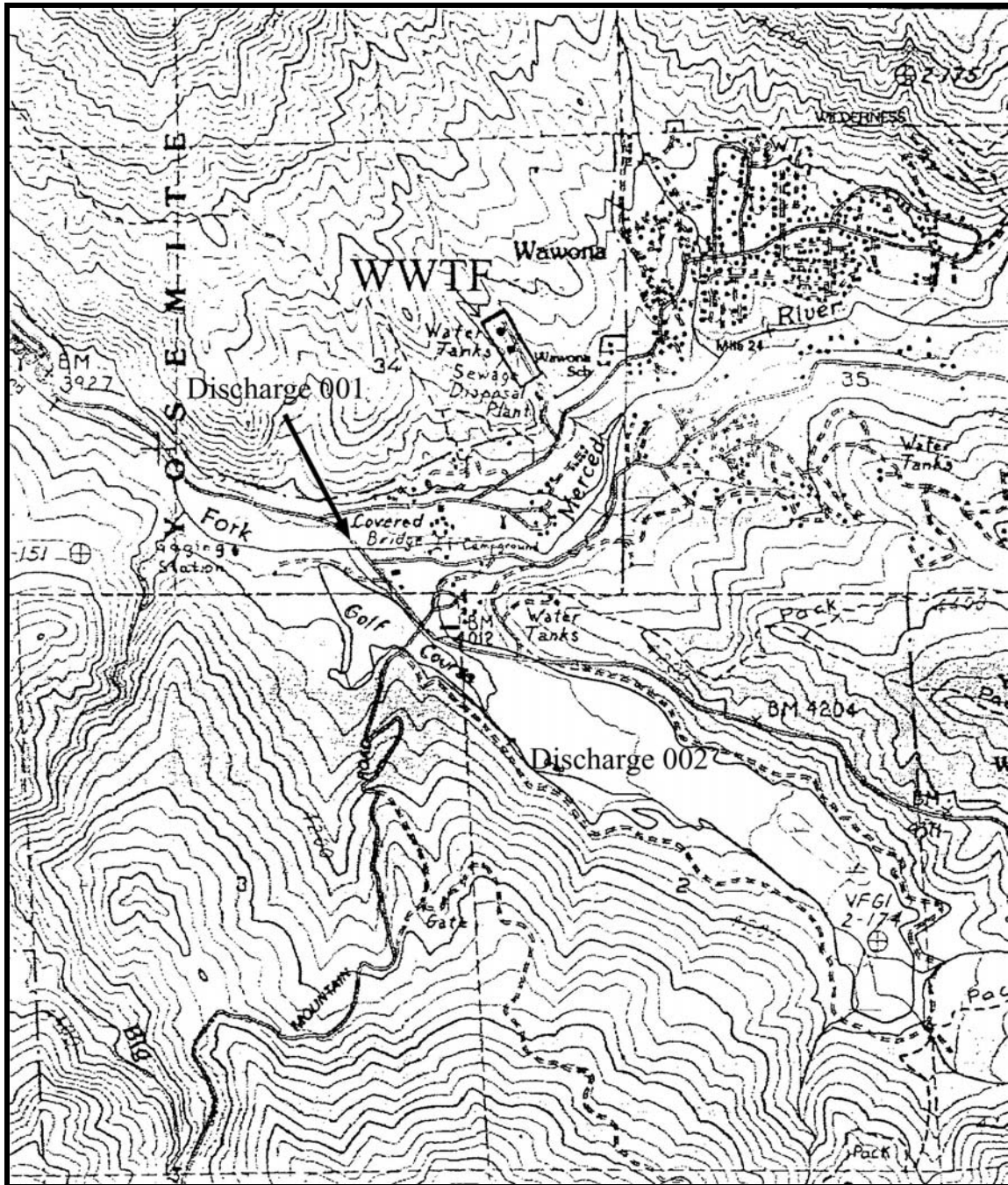
Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant over a calendar day.

Continuous discharge: The “discharge” which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

7-day Median Effluent Limitation: the highest allowable median of daily discharges over a 7-day period, calculated as the rolling median value of the previous 7-days.

4-day Average Effluent Limitation: the highest allowable 4-day average of daily discharges over a 4-day period, calculated as the sum of all daily discharges measured during the previous 4-days divided by the number of daily discharges measured during the 4-day period.

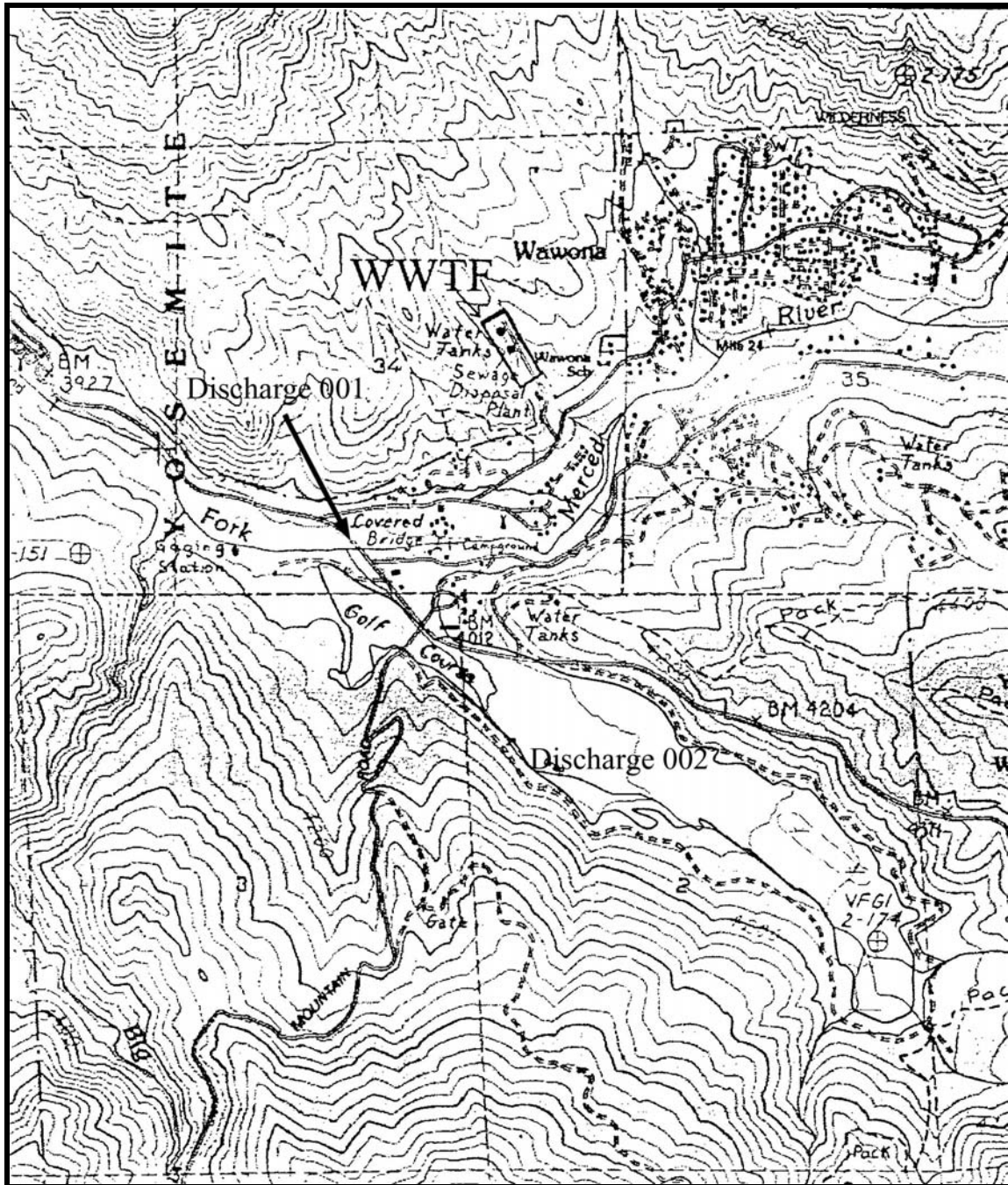
ATTACHMENT B – TOPOGRAPHIC MAP



SITE MAP

NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
YOSEMITE NATIONAL PARK
WAWONA WASTEWATER TREATMENT FACILITY
Mariposa County
Facility Location - Section 34, T4S, R21E, MDB&M
Wawona, California, 7.5 Min. U.S.G.S. Quad Map

ATTACHMENT B – TOPOGRAPHIC MAP



SITE MAP

NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
YOSEMITE NATIONAL PARK
WAWONA WASTEWATER TREATMENT FACILITY
Mariposa County
Facility Location - Section 34, T4S, R21E, MDB&M
Wawona, California, 7.5 Min. U.S.G.S. Quad Map

ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. Standard Provisions – Permit Compliance

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application. [40 CFR §122.41(a)]
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement. [40 CFR §122.41(a)(1)]

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. [40 CFR §122.41(c)]

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. [40 CFR §122.41(d)]

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. [40 CFR §122.41(e)]

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. [40 CFR §122.41(g)]
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations. [40 CFR §122.5(c)]

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR §122.41(i)] [CWC 13383(c)]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR §122.41(i)(1)];
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR §122.41(i)(2)];
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR §122.41(i)(3)];
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location. [40 CFR §122.41(i)(4)]

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. [40 CFR §122.41(m)(1)(i)]
 - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. [40 CFR §122.41(m)(1)(ii)]
2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [40 CFR §122.41(m)(2)]
3. Prohibition of bypass – Bypass is prohibited, and the Regional Board may take enforcement action against a Discharger for bypass, unless [40 CFR §122.41(m)(4)(i)]:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; [40 CFR §122.41(m)(4)(A)];
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; [40 CFR §122.41(m)(4)(B)]; and
 - c. The Discharger submitted notice to the Regional Board as required under Standard Provision I.G.5 below. [40 CFR §122.41(m)(4)(C)]
4. The Regional Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. [40 CFR §122.41(m)(4)(ii)]
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. [40 CFR §122.41(m)(3)(i)]

- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below. [40 CFR §122.41(m)(3)(ii)]

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. [40 CFR §122.41(n)(1)]

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. [40 CFR §122.41(n)(2)]
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR §122.41(n)(3)]:
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 CFR §122.41(n)(3)(i)];
 - b. The permitted facility was, at the time, being properly operated [40 CFR §122.41(n)(3)(ii)];
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2(b). [40 CFR §122.41(n)(3)(iii)]; and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C, above. [40 CFR §122.41(n)(3)(iv)].
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 CFR §122.41(n)(4)].

II. Standard Provisions – Permit Action

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. [40 CFR §122.41(f)]

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. [40 CFR §122.41(b)]

C. Transfers

This Order is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC. [40 CFR §122.41(l)(3)] [40 CFR §122.61]

III. Standard Provisions – Monitoring

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR §122.41(j)(1)]
- B.** Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order. [40 CFR §122.41(j)(4)] [40 CFR §122.44(i)(1)(iv)]

IV. Standard Provisions – Records

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board Executive Officer at any time. [40 CFR §122.41(j)(2)]
- B.** Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements [40 CFR §122.41(j)(3)(i)];
 - 2. The individual(s) who performed the sampling or measurements [40 CFR §122.41(j)(3)(ii)];
 - 3. The date(s) analyses were performed [40 CFR §122.41(j)(3)(iii)];
 - 4. The individual(s) who performed the analyses [40 CFR §122.41(j)(3)(iv)];
 - 5. The analytical techniques or methods used [40 CFR §122.41(j)(3)(v)]; and
 - 6. The results of such analyses [40 CFR §122.41(j)(3)(vi)]
- C.** Claims of confidentiality for the following information will be denied [40 CFR §122.7(b)]:
 - a. The name and address of any permit applicant or Discharger [40 CFR §122.7(b)(1)];
 - b. Permit applications and attachments, permits and effluent data [40 CFR §122.7(b)(2)].

V. Standard Provisions – Reporting

A. Duty to Provide Information

The Discharger shall furnish to the Regional Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Board, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Board, SWRCB, or USEPA copies of records required to be kept by this Order. [40 CFR §122.41(h)] [CWC 13267]

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Board, SWRCB, and/or USEPA shall be signed and certified in accordance with paragraph (2) and (3) of this provision. [40 CFR §122.41(k)]
2. All permit applications shall be signed as follows:
 - a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. [40 CFR §122.22(a)(1)]
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; [40 CFR §122.22(a)(2)] or
 - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). [40 CFR §122.22(a)(3)]
3. All reports required by this Order and other information requested by the Regional Board, SWRCB, or USEPA shall be signed by a person described in paragraph (2) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in paragraph (2) of this provision [40 CFR §122.22(b)(1)];
 - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); [40 CFR §122.22(b)(2)] and,
 - c. The written authorization is submitted to the Regional Board, SWRCB, or USEPA. [40 CFR §122.22(b)(3)]
4. If an authorization under paragraph (3) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3) of this provision must be submitted to the Regional Board, SWRCB or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative. [40 CFR §122.22(c)]
5. Any person signing a document under paragraph (2) or (3) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel

properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” [40 CFR §122.22(d)]

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. [40 CFR §122.41(l)(4)]
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Board or SWRCB for reporting results of monitoring of sludge use or disposal practices. [40 CFR §122.41(l)(4)(i)]
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Board. [40 CFR §122.41(l)(4)(ii)]
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. [40 CFR §122.41(l)(4)(iii)]

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each schedule date. [40 CFR §122.41(l)(5)]

E. Twenty-four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR §122.41(l)(6)(i)]
2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR §122.41(l)(6)(ii)]:
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. [40 CFR §122.41(l)(6)(ii)(A)]
 - b. Any upset that exceeds any effluent limitation in this Order. [40 CFR §122.41(l)(6)(ii)(B)]
 - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours. [40 CFR §122.41(l)(6)(ii)(C)]
3. The Regional Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. [40 CFR §122.41(l)(6)(iii)]

F. Planned Changes

The Discharger shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR §122.41(l)(1)]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b); [40 CFR §122.41(l)(1)(i)] or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions - Notification Levels VII.A.1) [40 CFR §122.41(l)(1)(ii)]
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. [40 CFR §122.41(l)(1)(iii)]

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. [40 CFR §122.41(l)(2)]

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E at the time monitoring reports are submitted. The reports shall contain the information listed in Provision V.E. [40 CFR §122.41(l)(7)]

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information. [40 CFR §122.41(l)(8)]

VI. Standard Provisions – Enforcement – Not Applicable

VII. Additional Provisions – Notification Levels

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Board as soon as they know or have reason to believe [40 CFR §122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(1)]:
 - a. 100 micrograms per liter (µg/L) [40 CFR §122.42(a)(1)(i)];

- b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(1)(ii)];
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(1)(iii)]; or
 - d. The level established by the Regional Board in accordance with 40 CFR §122.44(f). [40 CFR §122.42(a)(1)(iv)]
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 CFR §122.42(a)(2)]:
- a. 500 micrograms per liter (µg/L) [40 CFR §122.42(a)(2)(i)];
 - b. 1 milligram per liter (mg/L) for antimony [40 CFR §122.42(a)(2)(ii)];
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 CFR §122.42(a)(2)(iii)]; or
 - d. The level established by the Regional Board in accordance with 40 CFR §122.44(f). [40 CFR §122.42(a)(2)(iv)]

B. Publicly-owned Treatment Works

All POTWs shall provide adequate notice to the Regional Board of the following [40 CFR §122.42(b)]:

- 1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [40 CFR §122.42(b)(1)]; and
- 2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. [40 CFR §122.42(b)(2)]

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. [40 CFR §122.42(b)(3)]

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR § 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC Sections 13267 and 13383 also authorize the Regional Water Quality Control Board to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements to implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Board.
- B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:
 - 1. "A Guide to Methods and Standards for the Measurement of Water Flow," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
 - 2. "Water Measurement Manual," U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
 - 3. "Flow Measurement in Open Channels and Closed Conduits," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
 - 4. "NPDES Compliance Sampling Manual," U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)
- C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services.
- D. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.
- F. If a discharge is intermittent rather than continuous, the Discharger shall monitor and record data on the first day of each intermittent discharge and thereafter the frequencies in the schedule shall apply. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

- G. If results of monitoring a pollutant appear to violate effluent limitations, but the monitoring frequency is not sufficient to validate the violation, the frequency of sampling shall be increased immediately to confirm the magnitude and duration of the violation.

II. MONITORING LOCATIONS

Specific sample station locations shall be established with concurrence of the Regional Board's staff, and the Discharger shall attach a description of the stations to this Monitoring and Reporting Program. The Discharger shall establish the following monitoring locations to demonstration compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	M-INF	WWTF influent, prior to any treatment.
001	M-001	After treatment and storage units, at the last connection prior to discharge to the South Fork of the Merced River.
001 and 002	M-002	Outlet of the surge tank prior to discharge to the storage tanks.
002	M-003	Required monitoring for reclaimed water discharged to the Wawona Golf Course. At the golf course booster pump station, after all treatment and storage units, at the last connection prior to discharge to the golf course.
--	R-001	250 feet upstream from the location of Outfall 001.
--	R-002	50 feet downstream from the location of Outfall 001.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-INF

- The Discharger shall monitor influent to the WWTF at M-INF. Samples shall be collected at approximately the same time as effluent samples and shall be representative of the influent. Influent monitoring shall include at least the following:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Metered	Continuous	[1]
BOD 5-day @ 20°C	mg/L	8-hour Composite	1/Week	[1]
Total Suspended Solids	mg/L	8-hour Composite	1/Week	[1]
Settleable Solids	mg/L	Grab	1/Week	[1]

- Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.

IV. EFFLUENT MONITORING REQUIREMENTS – SURFACE WATER DISCHARGE

A. Monitoring Location M-001

- The Discharger shall monitor effluent discharges from the storage tanks to the South Fork of the Merced River as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Metered	1/Day	[1]
Chlorine, Total Residual	mg/L	Grab	1/Day	[1]
Turbidity	NTU	Grab	1/Day	[1]
pH ²	pH units	Grab	1/Day	[1]
Dissolved Oxygen	mg/L	Grab	1/Day	[1]
Temperature	°C or °F	Grab	1/Day	[1]

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Ammonia (NH ₃) ³	mg/L	8-hour Composite	1/Week	[1]
Total Kjeldahl Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Nitrate Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Total Copper	µg/L	8-hour Composite	1/Month	[1]
	lbs/day	Calculation	1/Month	[1]
Acute Toxicity ⁴	%Survival	8-hour Composite	1/Year	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.
2. pH samples shall be collected immediately downstream of the dechlorination unit(s).
3. pH shall be determined at the time the sample is taken for ammonia analysis. Un-ionized ammonia shall be calculated based on the results and reported.
4. The acute bioassays samples shall be analyzed using methods in EPA-821-R-02-012, Fifth Edition, or later amendment with Board staff approval. Temperature and pH shall be recorded at the time of bioassay sample collection. Test species shall be fathead minnows.

B. Monitoring Location M-002

1. The Discharger shall monitor disinfected tertiary effluent, at M-002, during discharge to the South Fork of the Merced River as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Metered	Continuous	[1]
Turbidity	NTU	Metered	Continuous	[1]
Total Coliform Organisms	MPN/100 ml	Grab	1/Day	[1]
Settleable Solids	ml/L	Grab	1/Day	[1]
pH	standard units	Grab	1/Day	[1]
BOD 5-day 20°C	mg/L	8-hour Composite	2/Week	[1]
	lbs/day	Calculation	2/Week	[1]
Total Suspended Solids	mg/L	8-hour Composite	2/Week	[1]
	lbs/day	Calculation	2/Week	[1]
Conductivity (EC @ 25°C)	µmhos/cm	Grab	Weekly	[1]
Total Phosphorous	mg/L	8-hour Composite	2/Month	[1]
	lbs/day	Calculation	2/Month	[1]
Total Kjeldahl Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Ammonia (NH ₃)	mg/L	Grab	1/Month	[1]
Nitrate Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Total Copper	µg/L	8-hour Composite	1/Month	[1]
	lbs/day	Calculation	1/Month	[1]
Dichlorobromomethane	µg/L	Grab	1/Year	[1]
Chloroform	µg/L	Grab	1/Year	[1]
Methyl Chloride	µg/L	Grab	1/Year	[1]
Standard Minerals ²	mg/L	Grab	1/Year	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.
2. Standard minerals shall include: total dissolved solids, all major cations and anions, and a verification that the analysis is complete (i.e. cation/anion balance).

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to the receiving water. The testing shall be conducted as specified in EPA-821-R-02-013, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition. Composite samples of the effluent shall be collected prior to discharge to the South Fork of the Merced River. Eight hour composite samples shall be representative of the volume and quality of the discharge. Time of

collection samples shall be recorded. Dilution waters shall be collected upstream of the discharge to the South Fork of the Merced River. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia and Selenastrum capricornicutum
Frequency: Once during the term of this Order, during the first discharge to the South Fork of the Merced River

	<u>Dilutions (%)</u>					<u>Controls</u>	
	<u>100</u>	<u>75</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>South Fork Merced River</u>	<u>Lab Water</u>
% Effluent	100	75	50	25	12.5	0	0
% Dilution Water ¹	0	25	50	75	87.5	100	0
% Lab Water ²	0	0	0	0	0	0	100

- 1 Dilution water shall be receiving water taken upstream from the discharge point. The dilution series may be altered upon approval of Regional Board staff.
- 2 Lab water shall meet EPA protocol requirements

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS

A. Monitoring Location M-002

1. The Discharger shall monitor disinfected tertiary reclaimed water at Monitoring Location M-002 as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Metered	Continuous	[1]
Turbidity	NTU	Metered	Continuous	[1]
Total Coliform Organisms	MPN/100 ml	Grab	1/Day	[1]
Settleable Solids	ml/L	Grab	1/Day	[1]
pH	standard units	Grab	1/Day	[1]
BOD 5-day 20°C	mg/L	8-hour Composite	2/Week	[1]
	lbs/day	Calculation	2/Week	[1]
Total Suspended Solids	mg/L	8-hour Composite	2/Week	[1]
	lbs/day	Calculation	2/Week	[1]
Conductivity (EC @ 25°C)	μmhos/cm	Grab	Weekly	[1]
Total Phosphorous	mg/L	8-hour Composite	2/Month	[1]
	lbs/day	Calculation	2/Month	[1]
Total Kjeldahl Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Ammonia (NH ₃)	mg/L	8-hour Composite	1/Month	[1]
Nitrate Nitrogen	mg/L	8-hour Composite	1/Month	[1]
Standard Minerals ²	mg/L	Grab	1/Year	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.
2. Standard minerals shall include: total dissolved solids, all major cations and anions, and a verification that the analysis is complete (i.e. cation/anion balance).

B. Monitoring Location M-003

1. The Discharger shall monitor disinfected tertiary reclaimed water at Monitoring Location M-003 as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
pH	standard units	Grab	1/Month	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location R-001

1. All receiving water samples shall be grab samples. Samples shall be collected when there is discharge to the South Fork of the Merced River. If discharge does not occur during the monitoring period, samples are not required to be collected. The Discharger shall monitor the South Fork Merced River at Monitoring Location R-001 as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Estimation	Daily	[1]
Total Coliform Organisms	MPN/100	Grab	2/Week	[1]
Dissolved Oxygen	mg/L	Grab	1/Week	[1]
pH	pH units	Grab	1/Week	[1]
Turbidity	NTU	Grab	1/Week	[1]
Temperature	°C or °F	Grab	1/Week	[1]
Conductivity (EC @ 25°C)	µmhos/cm	Grab	1/Week	[1]
Total Kjeldahl Nitrogen	mg/L	Grab	1/Week	[1]
Ammonia (NH ₃) ²	mg/L	Grab	1/Week	[1]
Total Phosphorous	mg/L	Grab	1/Week	[1]
Chlorine Residual	mg/L	Grab	1/Week	[1]
Total Copper	µg/L	Grab	1/Month	[1]
Chloroform	µg/L	Grab	1/Year	[1]
Dichlorobromomethane	µg/L	Grab	1/Year	[1]
Methyl Chloride	µg/L	Grab	1/Year	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.
2. pH shall be determined at the time the sample is taken for ammonia analysis. Un-ionized ammonia shall be calculated based on the results and reported.

B. Monitoring Location R-002

1. All receiving water samples shall be grab samples. Samples shall be collected when there is discharge to the South Fork of the Merced River. If discharge does not occur during the monitoring period, samples are not required to be collected. The Discharger shall monitor the South Fork Merced River at Monitoring Location R-002 as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Total Coliform Organisms	MPN/100	Grab	2/Week	[1]
Dissolved Oxygen	mg/L	Grab	1/Week	[1]
pH	pH units	Grab	1/Week	[1]

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Turbidity	NTU	Grab	1/Week	[1]
Temperature	°C or °F	Grab	1/Week	[1]
Conductivity (EC @ 25°C)	µmhos/cm	Grab	1/Week	[1]
Total Kjeldahl Nitrogen	mg/L	Grab	1/Week	[1]
Ammonia (NH ₃) ²	mg/L	Grab	1/Week	[1]
Total Phosphorous	mg/L	Grab	1/Week	[1]
Chlorine Residual	mg/L	Grab	1/Week	[1]
Total Copper	µg/L	Grab	1/Month	[1]
Chloroform	µg/L	Grab	1/Year	[1]
Dichlorobromomethane	µg/L	Grab	1/Year	[1]
Methyl Chloride	µg/L	Grab	1/Year	[1]

1. Samples shall be analyzed using the methods and procedures described in the Code of Federal Regulations, Title 40, Part 136. The Discharger shall use a Department of Health Services licensed laboratory capable of providing method detection limits and minimum levels sufficient to determine compliance with effluent limitations.
2. pH shall be determined at the time the sample is taken for ammonia analysis. Un-ionized ammonia shall be calculated based on the results and reported.

IX. OTHER MONITORING REQUIREMENTS

A. Priority Pollutants

The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy or SIP). The SIP states that the Regional Boards will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Accordingly, the Regional Board is requiring, as part of this Monitoring and Reporting Program, that the Discharger conduct effluent monitoring (Monitoring Location M-002) and receiving water monitoring (Monitoring Location R-001) of priority pollutants on or before **15 April 2010**. The list of priority pollutants and required minimum levels (MLs) (or criterion quantitation limitations) is included as Attachment H. The Discharger must analyze pH and hardness at the same time as priority pollutants.

All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each constituent. The MDL should be as close as practicable to the USEPA MDL determined by the procedure found in 40 CFR Part 136. The results of analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory.
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
- c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration." Numerical estimates of data quality may be by percent accuracy (+ or – a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- d. Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

B. Dioxin

The Discharger shall test effluent for each of the 17 TCDD congeners listed in Table 4, *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). The Discharger shall report the analytical results of the effluent monitoring for each congener, including the minimum quantifiable level (ML) and the minimum detection level (MDL), and the measured or estimated concentration. The Discharger shall multiply each measured or estimated congener

concentration by its respective toxicity equivalence factor (TEF) value and report the sum of these values. The Discharger must monitor for the presence of the 17 congeners on or before **15 April 2010**. Results of sampling shall be submitted on or before **1 June 2010**. Reporting shall conform with SIP Reporting Requirements Section 2.4 et seq.

C. Sludge Monitoring

A composite sample of sludge shall be collected 1/Year in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document, August 1989*, and tested for the following metals:

Arsenic	Copper	Nickel
Cadmium	Lead	Selenium
Chromium	Mercury	Zinc

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

Annually (1/Year), the Discharger shall submit:

- Annual sludge production in dry tons and percent solids.
- A schematic diagram showing sludge handling facilities and a solids flow diagram.
- Depth of application and drying time for sludge drying beds.
- A description of disposal methods.
- The required analytical results.

D. Water Supply Monitoring

Representative samples of the Wawona water supply shall be obtained and shall include samples from both surface and groundwater. Water supply monitoring shall include at least the following:

Constituent	Units	Minimum Sampling Frequency
Conductivity (EC @ 25°C) ¹	µmhos/cm	1/Year
Total Dissolved Solids	mg/L	1/Year

1. Since source water is from both surface and ground waters, the conductivity shall be reported as a weighted average.

E. Filtration Rate Monitoring

The Discharger shall monitor the filtration rate and report the daily maximum filtration rate 1/day.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall report to the Regional Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the Emergency Planning and Community Right to Know Act of 1986.

B. Self Monitoring Reports

1. At any time during the term of this permit, the Discharger, after notification by the State or Regional Board, may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self monitoring reports is required, the Discharger shall submit self-monitoring reports in accordance with the requirements described further below.
2. The Discharger shall submit monthly and annual Self Monitoring Reports including the results of all required monitoring and monitoring conducted in addition to the minimum required monitoring and using USEPA approved test methods or other test methods specified in this Order. Monthly reports shall be due on the 1st day of the second month following the end of each calendar month; Annual reports shall be due on February 1 following each calendar year.
3. Monitoring periods for all required monitoring shall commence according to the following schedule:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Day after permit effective date	All	First day of second calendar month following month of sampling
1 / day	Day after permit effective date	Midnight through 11:59 PM or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
2 / week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
2 / month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1 / month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1 / year	January 1 following (or on) permit effective date	January 1 through December 31	February 1

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory current Method Detection Limit (MDL) as determined by the procedure in 40 CFR Part 136.
5. The Discharger shall arrange all reported data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
6. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

7. Self Monitoring Reports must be submitted to the Regional Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

Central Valley Regional Water Quality Control Board
Fresno Branch Office
1685 "E" Street
Fresno, CA 93706

C. Discharge Monitoring Reports

1. When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger Self Monitoring Reports.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy to the address listed below:

State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self generated or modified will not be accepted.

D. Other Reports

1. Annual Report (1/Year):

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names, certificate grades, and general responsibilities of all persons employed at the WWTF.
 - b. The names and telephone numbers of persons to contact for emergency and routine situations.
 - c. A statement certifying when the flow meters and other monitoring instruments and devices were last calibrated including identification of who performed the calibration.
 - d. A statement certifying whether the current operation and maintenance manual and contingency plan reflect the wastewater treatment plant as currently constructed and operated, and the dates when the documents were last revised and reviewed.
 - e. Annual sludge report.
2. Upon notice, the Discharger may also be requested to submit an annual report (1/Year) to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the specific legal requirements and detailed technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

WDID	5C220701004
Discharger	United States Department of the Interior, National Park Service, Yosemite National Park
Name of Facility	Wawona Wastewater Treatment Facility (WWTF)
Facility Address	4004 Chilnualna Falls Road Wawona, CA 95389 Mariposa County
Facility Contact, Title, and Phone	Paul J. Laymon, Utilities Facility Manager, (209) 379-1077
Authorized Person to Sign and Submit Reports	Michael Tollefson, Superintendent, (209) 372-0201
Mailing Address	P.O. Box 577 Yosemite National Park, CA 95389
Billing Address	Same
Type of Facility	Publicly Owned Treatment Works (POTW)
Threat to Water Quality	2
Complexity	B
Pretreatment Program	Y
Reclamation Requirements	Producer
Facility Permitted Flow	0.288 million gallons per day (mgd) from the storage tanks to the South Fork of the Merced River
Facility Design Flow	0.105 mgd
Watershed	South Fork Merced Hydrologic Area (537.40)
Receiving Water	South Fork of the Merced River
Receiving Water Type	River

The United States Department of the Interior, National Park Service, Yosemite National Park (hereinafter Discharger) is the owner and operator of Wawona Wastewater Treatment Facility (hereinafter WWTF) a POTW.

The WWTF discharges wastewater to the South Fork of the Merced River, a water of the United States and is currently regulated by Order No. 99-137, which was adopted on October 29, 1999 and expired on October 29, 2004. The terms of Order No. 99-137 automatically continued in effect after the permit expiration date.

The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on September 13, 2004. A site visit was conducted on October 13, 2004 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The WWTF provides sewerage service to the community of Wawona, which includes public and private visitor service facilities, Park Service housing facilities, the Wawona Hotel Complex, the Wawona Seventh-Day Adventist Camp, and nearby picnic areas. The population of Wawona varies during the year. During fall and winter, the population of the community can be as little as 160 residents, with weekend increases due to vacation and rental cabins. During summer and spring, the population increases to about 1,740 residents and visitors.

The WWTF is in Section 34, T4S, R21E, MDB&M, as shown on Attachment B.

A. Description of Wastewater Treatment or Controls

1. The WWTF provides tertiary treatment and includes an equalization tank, an activated sludge treatment system, coagulant and polymer injections, rapid mixing, flocculation, final sedimentation, and sand filtration. Phosphorous is removed by adding alum in the final treatment units. Effluent is chlorinated and pH balanced before storage in two above-ground storage tanks, which provide a total capacity of five million gallons. The storage tanks also provide chlorine contact time. Wastewater from the storage tanks is dechlorinated prior to discharge to the South Fork of the Merced River or the Wawona Golf Course for irrigation. The WWTF has an influent design treatment capacity of 0.105 mgd with 90% BOD₅, total suspended solids, and phosphorous removal rate efficiencies.
2. Sludge is digested in aerobic sludge digesters and transported to the El Portal WWTF. Sludge produced from both WWTFs is combined and hauled off-site by a contract hauler and applied on agricultural lands in the San Joaquin Valley. A general flow schematic for the WWTF is shown in Attachment C.

B. Discharge Points and Receiving Waters

Effluent from the WWTF is reclaimed on the Wawona Golf Course (Discharge 002), but the Discharger wishes to retain an NPDES permit for discharge to the South Fork of the Merced River (Discharge 001) when reclaimed water supplies exceed irrigation demand and storage capacity. Both Discharges, 001 and 002, are within the South Fork Merced Hydrologic Area. The discharges are summarized below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Disinfected tertiary municipal wastewater	37°, 32', 30" N	119°, 39', 19" W	South Fork Merced River
002	Disinfected tertiary municipal wastewater	37°, 32', 30" N	119°, 39', 00" W	Wawona Golf Course/Groundwater

1. Discharge 001

Discharge 001 to the South Fork of the Merced River occurs intermittently only when the golf course does not require irrigation and the storage tanks are full. The last discharge from the WWTF to the South Fork of the Merced River occurred in 1991. This Order and Order No. 99-137 prohibit discharges to the river unless the ratio of river flow to wastewater flow is 150:1.

Discharge to the river occurs through a diffuser, consisting of a pipe with equally spaced holes that were installed under cobbles in the river bed in 1989. The diffuser was washed out in January 1997 during an extreme flood event, and replaced in October 1997. The diffuser is located beneath the main flow channel and is designed to promote rapid mixing of the effluent with the river. The maximum discharge capacity of the diffuser is 200 gallons per minute (gpm).

Headwaters of the South Fork of the Merced River originate as snow melt from the west slope of the Sierra Nevada. Waters of the South Fork are of excellent quality. Based on data from the Discharger's self-monitoring reports for January 2001 – August 2004, the long-term average conductivity at 25 °C (EC) at the Discharger's upstream sampling location R-1 is 27 µmhos/cm.

From October 1, 1958 through September 30, 1968, river flows were measured continuously near the point of discharge by the United States Geological Survey (USGS). River flows in the Yosemite area are normally lowest during August and September. The lowest recorded flow during the river discharge window (December through May) between December 1958 and May 1968 was 3.7 cubic feet per second (cfs). Discharger self-monitoring reports for the period of January 2001 – August 2004 indicate that the minimum flow during the river discharge window was 5 cfs.

2. Discharge 002

Disinfected tertiary reclaimed wastewater is blended with river water in the storage tanks and used to irrigate the Wawona Golf Course. Wastewater gravity flows from the tanks to the golf course pump station, and is distributed through the golf course irrigation system. Wastewater applied to land either evaporates, is taken up by vegetation, or percolates into local groundwater. The discharge to land at the golf course is considered a discharge to groundwater.

Groundwater in the area flows southwest. Roughly half of the residents in Wawona own private wells. The Discharger supplies drinking water to the remaining residents from the South Fork of the Merced River. The surface water supply intake is upstream of the golf course and river discharge locations.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

1. Effluent limitations contained in Order No. 99-137 for discharges from Discharges 001 and 002, and representative monitoring data from the term of Order No. 99-137 are as follows:

Constituent (units)	Effluent Limitation			Effluent Monitoring Data January 2001–August 2004		
	Average Monthly	Average Weekly	Maximum Daily	Minimum Daily	Maximum Daily	Long Term Average ^a
BOD ₅ (mg/L)	10	15	20	1	9.3	3.1
Total Suspended Solids (mg/L)	10	15	20	0.09	8.2	1.7
Settleable Solids (mL/L)	0.1	--	0.1	ND	ND	ND
Total Coliform (MPN/100 mL)	--	2.2 ^b	23	<2	4	--
Total Phosphorous (mg/L)	0.5	0.75	1	ND	0.4	0.1
Turbidity (NTU)	--	--	2 ^c	0	1.8	0.2
pH (s.u)	--	--	6.5 – 8.5 ^d	6.5	8.4	--

a. Based on all detected monitoring data within the period of January 2001 – August 2004.

b. 7-day median limitation.

c. Daily average limitation.

d. Minimum-Maximum range.

2. The Report of Waste Discharge describes the discharge as follows:

Annual Average Influent Flow:	0.055 mgd
Annual Average Reclamation Flow:	0.089 mgd
Average Temperature:	21 °C Summer; 11 °C Winter

<u>Constituent</u>	<u>Units</u>	<u>Average Daily</u>
BOD ₅ @20 °C	mg/L	3.5
Suspended Solids	mg/L	1.6
Total Kjeldahl N	mg/L	1.2
Nitrate+Nitrite N	mg/L	24
Total Phosphorous	mg/L	0.17
pH	standard units	6.6 – 7.5 (range)

D. Compliance Summary

The Discharger has been able to achieve compliance with the effluent limitations of WDRs Order No. 99-137. However, the Discharger has not fully complied with Order No. 99-137's Monitoring and Reporting Program (MRP) or Regional Board directives to submit Priority Pollutant monitoring data for the receiving water. Notable areas of non-compliance are as follows:

1. On February 27, 2001 the Discharger was directed to conduct a receiving water and effluent monitoring study in accordance with the SIP. The Discharger has sampled the effluent for most priority pollutants, but has not sampled the receiving water.
2. The Discharger has not sampled the effluent for general minerals annually, as required by the MRP.

E. Planned Changes

There is a tentative plan to convert from gaseous chlorine and sulfur dioxide to liquid agents. This chemical change will not affect the current overall process. The intention is to remove the potential hazard of accidental gaseous releases. Engineering will begin in 2005.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

B. California Environmental Quality Act (CEQA)

1. The action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with Section 13389 of the CWC.
2. The action to update waste discharge requirements for the existing land discharge (Discharge 002) is exempt from the provisions of CEQA, in accordance with Title 14, CCR, Section 15301.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Board adopted a Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Fourth Edition (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to sources of the Merced River, including the South Fork, are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	South Fork of the Merced River	<u>Existing:</u> Agricultural supply (AGR); hydropower generation (POW); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD). <u>Potential:</u> Municipal and domestic water supply (MUN)
002	Groundwater (Wawona Golf Course Discharge)	MUN, AGR, industrial service supply (IND), industrial process supply (PRO).

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.
3. **State Implementation Policy.** On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP was amended by State Board on February 24, 2005. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.
4. **Anti-degradation Policy.** The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.
5. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in the Order are at least as stringent as the effluent limitations in Order No. 99-137.
6. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWA authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is in Attachment E.

7. **Emergency Planning and Community Right to Know Act.** Section 13263.6(a), California Water Code, requires that “the regional board shall prescribe effluent limitations as part of the waste discharge requirements of a POTW for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. Sec. 11023) (EPCRA) indicate as discharged into the POTW, for which the state board or the regional board has established numeric water quality objectives, and has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective”. USEPA’s Envirofacts website (<http://www.epa.gov/epahome/commsearch.htm>) was searched on August 3, 2005 to determine whether the Discharger has had a recent toxic chemical release. The WWTF has not reported a recent toxic chemical release; therefore CWC section 133263.6(a) effluent limitations for toxic chemicals are not required.
8. **Stormwater Requirements.** USEPA promulgated Federal Regulations for stormwater on 16 November 1990 in 40 CFR Parts 122, 123, and 124. The NPDES Industrial Storm Water Program regulates stormwater discharges from municipal sanitary sewer systems. Wastewater Treatment Plants are applicable industries under the stormwater program and are obligated to comply with the Federal Regulations. Stormwater discharges from the WWTF are not required to be regulated under the General Permit for Discharges of Storm Water Associated with Industrial Activities (State Water Resources Control Board, Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001) because the design flow rate is less than 1 mgd.

D. Impaired Water Bodies on CWA 303(d) List

The South Fork of the Merced River is not listed as an impaired water body.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.

The federal Clean Water Act (CWA) mandates the implementation of effluent limitations that are as stringent as necessary to meet water quality standards established pursuant to state or federal law. (33 U.S.C., § 1311(b)(1)(C); 40 CFR 122.44(d)(1)) NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to criteria specifying maximum amounts of particular pollutants. Pursuant to 40 CFR 122.44(d)(1)(i), NPDES permits must contain limits that control all pollutants that “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality.” 40 CFR 122.44(d)(1)(vi) further provides that “[w]here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits.”

The Regional Board’s Basin Plan, page IV-17.00, contains an implementation policy (“Policy for Application of Water Quality Objectives”) that specifies that the Regional Board “will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives.” This Policy complies with 40 CFR 122.44(d)(1). With respect to narrative objectives, the Regional Board must establish effluent limitations using one or more of three specified sources, including EPA’s published water quality criteria, a proposed state criterion (i.e., water quality objective), or an explicit state policy interpreting its narrative water quality criteria (i.e., the Regional Board’s “Policy for Application of Water Quality Objectives”)(40 C.F.R. 122.44(d)(1) (vi) (A), (B) or (C)). The Basin Plan contains a narrative objective requiring that: “All

waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life". The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances that adversely affect beneficial uses. The Basin Plan states that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water beneficial uses. For waters designated as MUN, the Basin Plan specifies that, at a minimum, waters shall not contain concentrations of constituents that exceed Maximum Contaminant Levels (MCL) of CCR Title 22. The Basin Plan further states that, to protect all beneficial uses, the Regional Board may apply limits more stringent than MCLs. When a reasonable potential exists for exceeding a narrative objective, Federal Regulations mandate numerical effluent limitations and the Basin Plan narrative criteria clearly establish a procedure for translating the narrative objectives into numerical effluent limitations.

A. Discharge Prohibitions

1. As stated in Section I.G of Attachment D, Federal Standard Provisions, this Order prohibits bypass from any portion of the treatment Facility. Federal Regulations, 40 CFR 122.41 (m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the Federal Regulations, 40 CFR 122.41 (m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. The State Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the Federal Regulations, 40 CFR 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation. In the case of *United States v. City of Toledo, Ohio* (63 F. Supp 2d 834, N.D. Ohio 1999) the Federal Court ruled that "any bypass which occurs because of inadequate plant capacity is unauthorized...to the extent that there are 'feasible alternatives', including the construction or installation of additional treatment capacity".

The Federal Clean Water Act, Section 301, requires that not later than July 1, 1977, POTWs meet effluent limitations based on secondary treatment or any more stringent limitation necessary to meet water quality standards. Federal Regulations, 40 CFR, Part 133, establish the minimum level of effluent quality attainable by secondary treatment for BOD, TSS, and pH. Tertiary treatment requirements for BOD and TSS are based on the technical capability of the process. Biochemical oxygen demand (BOD) is a measure of the amount of oxygen used in the biochemical oxidation of organic matter. The solids content—suspended (TSS) and settleable (SS)—is also an important characteristic of wastewater. The secondary and tertiary treatment standards for BOD and TSS are indicators of the effectiveness of the treatment processes.

2. The Discharger's sanitary sewer system collects wastewater using sewers, pipes, pumps, and/or other conveyance systems and directs the raw sewage to the WWTF. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the WWTF. Sanitary sewer overflows are prohibited by this Order. All violations must be reported as required in Standard Provisions.
3. Order No. 99-137 required that discharges to the South Fork of the Merced River only occur during the six months between December 1 and May 31. Instead of limiting the discharge to occur during the specified months, this Order prohibits discharge to the South Fork of the Merced River during the six months between June 1 and November 30.

B. Technology-Based Effluent Limitations

1. Scope and Authority

- a. Regulations promulgated in 40 CFR §125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD₅), total suspended solids (TSS), and pH.

- b. The California Department of Health Services (DHS) has established statewide reclamation criteria in Title 22 of the California Code of Regulations for use of reclaimed water and has developed guidelines for discharges to surface waters. The Regional Board consults with the DHS on reclamation discharges in accordance with the terms specified in a Memorandum of Agreement between DHS and the State Board.

2. Applicable Technology-Based Effluent Limitations

- a. **BOD, TSS, Settleable Solids, Turbidity, Total Coliform, and Filtration Rate.** Order No. 99-137 established effluent limitations for BOD, total suspended solids (TSS), settleable solids, turbidity, total coliform, and filtration rate, which are technology-based effluent limitations (TBELs) for tertiary treatment systems based on best professional judgment (BPJ). Results of water quality monitoring indicate that detected concentrations of these constituents meet the BPJ TBELs. The existing technology-based limitations are protective of Basin Plan beneficial uses. To ensure continued attainment of beneficial uses, this Order carries over the TBELs established by Order No. 99-137 with the exception of mass-based effluent limitations for BOD and TSS. Order No. 99-137 established mass-based effluent limitations for BOD and TSS using the maximum effluent discharge rate of 0.288 mgd. This Order establishes mass based effluent limitations for BOD and TSS using the design flow rate of 0.105 mgd, consistent with federal regulations contained in 40 CFR 122.45(b)(1).
- b. **Chlorine, Total Residual.** The Discharger uses chlorine for disinfection of the effluent. COLD and WARM are beneficial uses of the Receiving Water. The Basin Plan includes a narrative water quality objective that “[a]ll waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.” Chlorine can cause toxicity to aquatic organisms when discharged to surface waters. USEPA recommends, in its Ambient Water Quality Criteria for the protection of fresh water aquatic life, maximum 1-hour average and 4-day average chlorine concentrations of 0.019 mg/L and 0.011 mg/L, respectively. The use of chlorine as a disinfectant presents a reasonable potential that it could be discharged in toxic concentrations. Disinfected tertiary effluent flows from the storage tank to the de-chlorination system before discharge to the South Fork of the Merced River. The de-chlorination system is capable of removing chlorine to the USEPA recommended criteria. This Order sets the USEPA recommended criteria as TBELs for total residual chlorine based on BPJ.

- c. **Influent Flow.** Order No. 99-137 established an influent monthly average daily dry weather flow limitation of 0.105 mgd based on the WWTF design treatment capacity. The influent flow limitation is continued in this Order.

Table F-1.
Summary of Technology-based Effluent Limitations
Discharge Point 001

Constituent	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	0.105 ¹	--	--	--	--
BOD 5-day @ 20°C	mg/L	10	15	20	--	--
	lbs/day ²	8.7	13	17	--	--
	%removal	90	--	--	--	--
Total Suspended Solids	mg/L	10	15	17	--	--
	lbs/day ²	8.7	13	17	--	--
	%removal	90	--	--	--	--
Settleable Solids	ml/L	0.1	--	0.1	--	--
The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 90 percent.						
The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed. The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.						
The turbidity in the effluent from the filtration unit and in the influent to the chlorination unit shall not exceed a daily average of 2 turbidity units and shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period, and shall not exceed 10 turbidity units at any time.						
The effluent total residual chlorine at Monitoring Location M-001 shall not exceed a 4-day average concentration of 0.01 mg/L, and shall not exceed a 1-hour average concentration of 0.02 mg/L.						
The maximum filtration rate shall not exceed 5 gpm/ft ² .						

1. Monthly average dry weather influent flow, as measured by the influent flow meter.
2. Based upon a design treatment capacity of 0.105 mgd.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other State plans and policies, or water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The receiving stream is the South Fork of the Merced River, which is tributary to the Merced River. Order No. 99-137 required that the discharge only occur when at least 150:1 (receiving water:effluent) dilution is available. This Order continues the requirement, thereby granting 150:1 dilution.

3. Determining the Need for WQBELs

- a. Reasonable potential (RP) was determined by calculating the projected MEC (maximum effluent concentration) for each constituent and comparing it to applicable water quality criteria; if a criterion was exceeded, the discharge was determined to have reasonable potential to exceed a water quality objective for that constituent. The projected MEC (maximum effluent concentration) is determined by multiplying the observed MEC (the maximum detected concentration) by a factor that accounts for statistical variation. The multiplying factor is determined (for 99% confidence level and 99% probability basis) using the number of results available and the coefficient of variation (standard deviation divided by the mean) of the sample results. In accordance with the SIP, non-detect results were counted as one-half the detection level when calculating the mean. For all constituents for which the source of the applicable water quality standard is the CTR or NTR, the multiplying factor is 1. Reasonable potential evaluation was based on the methods used in the SIP and the USEPA Technical Support Document for Water Quality-Based Toxics Control [EPA/505/2-90-001].
- b. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs the Regional Board finds that the discharge does have a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard for copper and chlorine. Effluent limitations for these constituents are included in this Order.
- c. The reasonable potential analysis for detected constituents is summarized below in Table F-2.

Table F-2.
RPA Summary for Detected Constituents
Discharge 001

Constituent	n ¹	cv ²	RPA multiplier ³	MEC	Adjusted MEC ⁴	B ⁵	Bproj ⁶	WQO/WQC ⁷	Source	RP
Nitrate-N (mg/L)	36	0.3	1.4	32	45	3	3.3	10	California Primary MCL	N
Conductivity(μmhos/cm)	151	0.3	1.1	1167	1284	60	68	900	California Secondary MCL	N

Constituent	n ¹	cv ²	RPA multiplier ³	MEC	Adjusted MEC ⁴	B ⁵	Bproj ⁶	WQO/WQC ⁷	Source	RP
Boron (mg/L)	1	0.6	13.2	0.1 ⁹	1.32	NA	NA	0.6	USEPA SNARL	I ⁸
Chloride (mg/L)	1	0.6	13.2	32	422	17	19.7	106	Agricultural Water Quality Limits	N
Chromium (III) (µg/L)	1	0.6	--	1 ⁹	--	ND	NA	31/261	CTR CCC/CMC	N
Chromium (VI) (µg/L)	1	0.6	--	0.6 ⁹	--	NA	NA	11/16	CTR CCC/CMC	N
Copper (µg/L)	1	0.6	--	37	--	10	10.2	1.3/1.6	CTR CCC/CMC	Y
Mercury (µg/L)	1	0.6	--	0.001	--	0.4	NA	0.05	CTR HH	N
Chloroform (µg/L)	1	0.6	13.2	12	158.4	NA	NA	80	USEPA Primary MCL	I
Dichlorobromomethane (µg/L)	1	0.6	--	1.82 ⁹	--	NA	NA	0.56	CTR HH	I
Methyl Chloride (µg/L)	1	0.6	13.2	0.67 ⁹	8.84	NA	NA	3	USEPA Drinking Water Health Advisory	I

1. Number of data points available.
2. Coefficient of variation.
3. Statistically determined 99th percentile multiplier.
4. Determined using RPA multiplier.
5. Background receiving water concentration. ND=non-detect, NA=not available.
6. Projected background receiving water concentration, taking into consideration 150:1 dilution, background concentration, and the projected maximum effluent concentration.
7. Applicable water quality objectives or criteria.
8. Indeterminate. Not enough information to establish limitations.
9. Detected but not quantified value (DNQ). Data point was estimated because the value is greater than the method detection limit (MDL), but less than the minimum level (ML).

- d. **Total Copper.** Based on information included in analytical laboratory results submitted by the Discharger, the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the CTR criteria for copper. The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for copper. COLD and WARM are beneficial uses of the receiving water. The criteria for copper are presented in dissolved concentrations. USEPA recommends conversion factors to translate dissolved concentrations to total concentrations. The conversion factors for copper in freshwater are 0.960 for both the acute and the chronic criteria. Using the worst-case (lowest of receiving water and effluent) measured hardness of 9.9 mg/L, the corresponding criteria are 1.6 µg/L and 1.3 µg/L for the acute and chronic criteria, respectively. Copper has been detected in the receiving water at a concentration of 10 µg/L, therefore assimilative capacity for copper may not be available, and the CTR criteria must be met at the point of discharge. The Effluent Limitations for copper included in this Order are presented in total concentrations, and are based on CTR criteria for the protection of freshwater aquatic life.
- e. **Total Phosphorous.** During the late 1980s, the Discharger conducted studies concerning potential algal growth on the main fork of the Merced River near El Portal. Evaluation of the data generated from these studies indicated that control of phosphorous concentrations in the El Portal WWTF's effluent to a level below 0.5 mg/L would accomplish sufficient nutrient removal so as not to induce algal growth in the Merced River. Based on the watershed similarities of the Merced River near El Portal and the South Fork of the Merced River near Wawona, Order No. 99-137 assigned phosphorous limitations of 0.5 mg/L (monthly average), 0.75 mg/L (weekly average), and 1 mg/L (daily maximum). The limitations were applied to Discharges 001 and 002. To protect the receiving waters from nutrient overloading and in accordance with federal Antidegradation provisions, the phosphorous limitations are continued in this Order. Order No. 99-137 established mass-based effluent limitations for Total Phosphorous using the maximum effluent discharge rate of 0.288 mgd. This Order establishes mass based effluent limitations for Total Phosphorous using the design flow rate of 0.105 mgd, consistent with federal regulations contained in 40 CFR 122.45(b)(1).

- f. **Boron, Dichlorobromomethane, and Methyl Chloride.** Insufficient information is available to determine whether boron, dichlorobromomethane, and methyl chloride levels in the discharge have reasonable potential to cause or contribute to an in-stream excursion above applicable water quality criteria or objectives. There is only one effluent data point available for each of these constituents, and the data points have been estimated as present, but not quantifiable or DNQ. Instead of limitations, additional monitoring has been established for boron, dichlorobromomethane, and methyl chloride with a reopener provision should monitoring results indicate that the discharge has the reasonable potential to cause or contribute an exceedance of water quality objectives.
- g. **Chloroform.** Insufficient information is available to determine whether chloroform levels in the discharge have reasonable potential to cause or contribute to an in-stream excursion above applicable water quality objectives. There is only one effluent data point available, and the data point is less than the respective WQO. Instead of limitations, additional monitoring has been established with a reopener provision should monitoring results indicate that the discharge has the reasonable potential to cause an exceedance of water quality objectives for chloroform.
- h. **pH.** The Basin Plan includes numeric water quality objectives that the pH "...not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters with designated COLD or WARM beneficial uses." The South Fork of the Merced River is designated as having both COLD and WARM beneficial uses. An effluent limitation for pH is included in this Order based on the Basin Plan objectives for pH.

4. WQBEL Calculations

- a. The Discharger conducted monitoring for priority and non-priority pollutants. The analytical results of one comprehensive sampling event were submitted to the Regional Board. The results of this sampling event were used in developing the requirements of this Order. Effluent limitations are included in this Order to protect the beneficial uses of the receiving stream and to ensure that the discharge complies with the Basin Plan objective that toxic substances not be discharged in toxic amounts. Unless otherwise noted, all mass limitations in this Order were calculated by multiplying the concentration limitation by the design flow and the appropriate unit conversion factors.
- b. Effluent Limitations for water quality-based limitations were calculated in accordance with Section 1.4 of the SIP and the TSD. The following paragraphs describe the general methodology used for calculating Effluent Limitations.
- c. **Flow.** The WWTF was designed to provide a tertiary level of treatment for up to its design flow of 0.105 mgd. However, the effluent flows to storage tanks and is diluted with water drawn from the South Fork of the Merced River and is not discharged directly to the South Fork of the Merced River. Because effluent is stored, Order No. 99-137 established a maximum daily effluent discharge limitation of 0.288 mgd for discharges to the South Fork of the Merced River from the effluent storage tanks based on the design flow at the diffuser. Order No. 99-137 also limited the discharge to the six months between December 1 and May 31. This Order continues the maximum daily effluent discharge limitation of 0.288 mgd and prohibits discharges to the South Fork of the Merced River during the six months between June 1 and November 30.
- d. **Mass-based Effluent Limitations.** Mass-based limitations were based upon the design treatment capacity of 0.105 mgd in accordance with 40 CFR 122.45(b)(1).
- e. USEPA recommends a maximum daily limitation rather than an average weekly limitation for water quality based permitting. Where applicable, WQBELs based on weekly averages were converted to maximum daily effluent limitations using the procedures outlined in the TSD.

- f. **Calculations for Effluent Limitations.** Using copper as an example, the following demonstrates how water quality based effluent limits were established for this Order. The process for developing these limits is in accordance with Section 1.4 of the SIP.

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criterion determine the effluent concentration allowance (ECA) using the following steady state equation:

$$\begin{aligned} \text{ECA} &= C + D(C-B) && \text{when } C > B, \text{ and} \\ \text{ECA} &= C && \text{When } C \leq B, \end{aligned}$$

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness and translators. In this Order a hardness value of 180 mg/L (as CaCO₃) was used for development of hardness-dependant criteria.
 D = The dilution credit, and
 B = The ambient background concentration

As discussed above, dilution credits for copper are not allowed because of lack of assimilative capacity; therefore:

$$\text{ECA} = C$$

For copper, the applicable water quality criteria are:

$$\begin{aligned} \text{ECA}_{\text{acute}} &= 1.6 \mu\text{g/L} \\ \text{ECA}_{\text{chronic}} &= 1.3 \mu\text{g/L} \\ \text{ECA}_{\text{human health}} &= 1300 \mu\text{g/L} \end{aligned}$$

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$\text{LTA}_{\text{acute}} = \text{ECA}_{\text{acute}} \times \text{Multiplier}_{\text{acute}}$$

$$\text{LTA}_{\text{chronic}} = \text{ECA}_{\text{chronic}} \times \text{Multiplier}_{\text{chronic}}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For copper, the following data was used to develop the acute and chronic LTA using Table 1 of the SIP:

No. of Samples	CV	<u>Multiplier_{acute}</u>	<u>Multiplier_{chronic}</u>
1	0.6	0.321	0.527

$$LTA_{acute} = 1.6 \mu\text{g/L} \times 0.321 = 0.514 \mu\text{g/L}$$

$$LTA_{chronic} = 1.3 \mu\text{g/L} \times 0.527 = 0.685 \mu\text{g/L}$$

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$

For copper, the most limiting LTA was the LTA_{acute}

$$LTA = 0.514 \mu\text{g/L}$$

Step 4: Calculate the water quality based effluent limits by multiplying the LTA by a factor (multiplier). Water quality-based effluent limits are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitations (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier}$$

$$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For copper, the following data was used to develop the AMEL and MDEL for aquatic life using Table 2 of the SIP:

No. of Samples	CV	<u>Multiplier_{MDEL}</u>	<u>Multiplier_{AMEL}</u>
1	0.6	3.11	1.55

$$AMEL_{aquatic\ life} = 0.514 \times 1.55 = 0.80 \mu\text{g/L}$$

$$MDEL_{aquatic\ life} = 0.514 \times 3.11 = 1.6 \mu\text{g/L}$$

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$$AMEL_{human\ health} = ECA_{human\ health}$$

For copper:

$$AMEL_{human\ health} = 1300 \mu\text{g/L}$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the Multiplier_{MDEL} to the Multiplier_{AMEL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{\text{human health}} = AMEL_{\text{human health}} \times (\text{Multiplier}_{MDEL} / \text{Multiplier}_{AMEL})$$

For copper, the following data was used to develop the MDEL_{human health}:

No. of Samples	CV	<u>Multiplier_{MDEL}</u>	<u>Multiplier_{AMEL}</u>	<u>Ratio</u>
1	0.60	3.11	1.55	2.01

$$MDEL_{\text{human health}} = 1300 \mu\text{g/L} \times 2.01 = 2600 \mu\text{g/L}$$

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For copper:

<u>AMEL_{aquatic life}</u>	<u>MDEL_{aquatic life}</u>	<u>AMEL_{human health}</u>	<u>MDEL_{human health}</u>
0.80 $\mu\text{g/L}$	1.6 $\mu\text{g/L}$	1300 $\mu\text{g/L}$	2600 $\mu\text{g/L}$

The lowest (most restrictive) effluent limits are based on aquatic toxicity and were incorporated into this Order. These limits will be protective of aquatic life.

Mass-based effluent limitations, or mass emission rates (MERs), for WQBELs applicable to Discharge 001 are calculated as follows:

$$MER = 8.34 \left(\frac{lb - L}{mg - Mgal} \right) \times AMEL - or - MDEL \times 0.105(mgd)$$

Where 0.105 mgd is the WWTF design flow rate.

Table F-3.
Summary of Water Quality-based Effluent Limitations
Discharge Point 001

Constituent	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow ¹	mgd	--	--	0.288	--	--
Total Copper	µg/L	0.80	--	1.6	--	--
	lbs/day	7.0×10^{-4}	--	1.4×10^{-3}	--	--
Total Phosphorous	mg/L	0.5	0.75	1	--	--
	lbs/day	0.44	0.66	0.88	--	--
pH	standard units	--	--	--	6.5	8.5

1. Compliance shall be determined at Monitoring Location M-001 for Maximum Daily Flow.

5. Whole Effluent Toxicity (WET)

- a. **Acute Toxicity.** Order No. 99-137 established the following acute toxicity limitations based on Basin Plan requirements: the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. This Order continues the acute toxicity limitations established by Order No. 99-137.

D. Final Effluent Limitations

1. 40 CFR §122.45 states that:
 - a. "In the case of POTWs, permit effluent limitations...shall be calculated based on design flow."
 - b. "For continuous discharges all permit effluent limitations...shall unless impracticable be stated as...[a]verage weekly and average monthly discharge limitations for POTWs."
 - c. "All pollutants limited in permits shall have limitations...expressed in terms of mass except...[f]or pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass...Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations."

Table F-4.
Summary of Final Effluent Limitations
Discharge Point 001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Flow	mgd	0.105 ¹	--	0.288 ²	--	--	Order No. 99-137, Antibacksliding
BOD 5-day @ 20°C	mg/L	10	15	20	--	--	BPJ, Order No. 99-137, Antibacksliding
	lbs/day	8.7	13	17	--	--	
	%removal	90	--	--	--	--	
Total Suspended Solids	mg/L	10	15	17	--	--	BPJ, Order No. 99-137, Antibacksliding
	lbs/day	8.7	13	17	--	--	
	%removal	90	--	--	--	--	
Settleable solids	ml/L	0.1	--	0.1	--	--	BPJ, Order No. 99-137, Antibacksliding
Total Phosphorous	mg/L	0.5	0.75	1	--	--	Order No. 99-137, Antibacksliding
	lbs/day	0.44	0.66	0.88	--	--	
pH	standard units	--	--	--	6.5	8.5	Basin Plan
Total Copper	µg/L	0.80	--	1.6	--	--	CTR Freshwater Aquatic Life Criteria
	lbs/day	7.0x10 ⁻⁴	--	1.4x10 ⁻³	--	--	
The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed. The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.							BPJ, Order No. 99-137, Antibacksliding
The turbidity in the effluent from the filtration unit and in the influent to the chlorination unit shall not exceed a daily average of 2 turbidity units and shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period, and shall not exceed 10 turbidity units at any time.							BPJ, Order No. 99-137, Antibacksliding
The maximum filtration rate shall not exceed 5 gpm/ft ² .							BPJ, Order No. 99-137, Antibacksliding
The effluent total residual chlorine at Monitoring Location M-001 shall not exceed a 4-day average concentration of 0.01 mg/L, and shall not exceed a 1-hour average concentration of 0.02 mg/L.							BPJ, Basin Plan

1. Monthly average influent flow, as measured by the influent flow meter.
2. Compliance shall be determined at Monitoring Location M-001 for Maximum Daily Flow.

E. Interim Effluent Limitations

- As stated in Finding I of this Order, the USEPA adopted the NTR and the CTR, which contain promulgated water quality criteria applicable to this discharge and the State Water Resources Control Board adopted the SIP, which contains guidance on implementation of the NTR and CTR. CTR and NTR criteria along with beneficial use designations contained the Basin Plan and antidegradation policies constitute water quality standards pursuant to the Clean Water Act. The SIP, Section 2.2.1, requires that if a compliance schedule is granted for a CTR or NTR constituent, the Regional Board shall establish interim requirements and dates for their achievement in the NPDES permit. The interim limitations must: be based on current treatment plant performance or existing permit limitations, whichever is more stringent; include interim compliance dates separated by no more than one year, and; be included in the Provisions. The interim limitations in this Order are based on current WWTF performance. In developing the interim limitations, where there are ten or more sampling data points available, sampling and laboratory variability are accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists*, Kennedy and Neville). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data. Where actual sampling shows an exceedance of the proposed 3.3 standard deviations interim limit, the maximum detected concentration has been established as the interim limitation. When there are less than ten sampling data points available, the *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001) (TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. Therefore, when there are less than ten sampling results for a constituent, the interim limitation is based on the corresponding multiplier from Table 3.1 of the TSD multiplied by the maximum observed sampling point. Interim limitations are established when compliance with NTR- and CTR-based Effluent Limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final Effluent Limitations, but in compliance with the interim Effluent Limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the Effluent Limitation can be achieved.
- The following interim limitations for copper establish an enforceable maximum effluent concentration until compliance with the final effluent limitations can be achieved:

	Maximum Daily
Copper	488 µg/L
	0.43 lbs/day ¹

1. Based on the design flow of 0.105 mgd.

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications

- Reclamation Specifications.** Reclamation Specifications established in this Order are consistent with the requirements in Title 22 of the California Code of Regulations, developed by the California Department of Health Services for the purveyance and use of reclaimed water.
- BOD, TSS, Settleable Solids, Turbidity, Total Coliform, and Filtration Rate.** Order No. 99-137 established reclamation specifications for BOD, total suspended solids (TSS), settleable solids, turbidity, total coliform, and filtration rate, which are technology-based treatment specifications for tertiary treatment systems based on Department of Health Services (DHS) requirements for the production of reclaimed water contained in Title 22, California Code of Regulations and best

professional judgment (BPJ). As the reclaimed water produced at the WWTF is used to irrigate the Wawona Golf Course, a public access golf course, this Order continues the reclamation specifications established by Order No 99-137 with the exception of mass-based discharge specifications for BOD and TSS. Order No. 99-137 established mass-based discharge specifications for BOD and TSS using the maximum effluent discharge rate of 0.288 mgd. This Order establishes mass-based discharge specifications for BOD and TSS using the design flow rate of 0.105 mgd.

3. **Total Phosphorous.** Order No. 99-137 assigned phosphorous discharge specifications of 0.5 mg/L (monthly average), 0.75 mg/L (weekly average), and 1 mg/L (daily maximum). The specifications were applied to Discharges 001 and 002. The total phosphorous discharge specifications are continued in this Order. Order No. 99-137 established mass-based discharge specifications for total phosphorous using the maximum effluent discharge rate of 0.288 mgd. This Order establishes mass based effluent limitations for total phosphorous using the design flow rate of 0.105 mgd.
4. **pH.** Order No 99-137 established discharge specifications requiring that effluent pH be within the limits of 6.5-8.5. The pH discharge specifications are continued in this Order.
5. **Influent Flow.** Order No. 99-137 established an influent monthly average daily dry weather flow limitation of 0.105 mgd. The influent flow limitation is continued in this Order.

Table F-5.
Summary of Reclamation Specifications
Discharge Point 002

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Flow	mgd	0.105 ¹	--	--	--	--	BPJ, Order No. 99-137, Antibacksliding
BOD 5-day @ 20°C	mg/L	10	15	20	--	--	BPJ, Order No. 99-137, Antibacksliding
	lbs/day	8.7	13	17	--	--	
	%removal	90	--	--	--	--	
Total Suspended Solids	mg/L	10	15	17	--	--	BPJ, Order No. 99-137, Antibacksliding
	lbs/day	8.7	13	17	--	--	
	%removal	90	--	--	--	--	
Settleable solids	ml/L	0.1	--	0.1	--	--	BPJ, Order No. 99-137, Antibacksliding
Total Phosphorous	mg/L	0.5	0.75	1	--	--	BPJ, Order No. 99-137, Antibacksliding
	lbs/day	0.44	0.66	0.88	--	--	
pH	standard units	--	--	--	6.5	8.5	Basin Plan
The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed. The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.							BPJ, Order No. 99-137, Antibacksliding, DHS Title 22
The turbidity in the effluent from the filtration unit and in the influent to the chlorination unit shall not exceed a daily average of 2 turbidity units and shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period, and shall not exceed 10 turbidity units at any time.							BPJ, Order No. 99-137, Antibacksliding, DHS Title 22
The maximum filtration rate shall not exceed 5 gpm/ft ² .							BPJ, Order No. 99-137, Antibacksliding, DHS Title 22
Use of recycled water shall comply with all the terms and conditions of the most current Title 22 regulations.							DHS Title 22

1. Monthly average dry weather influent flow, as measured by the influent flow meter.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

1. The Clean Water Act, Section 303(a-c), required states to adopt numeric criteria where they are necessary to protect designated uses. The Regional Board adopted numeric criteria in the Basin Plan. The Basin Plan is a regulatory reference for meeting the State and federal requirements for water quality control (40 CFR 131.20). State Board Resolution No. 68-16, the Antidegradation Policy, does not allow changes in water quality less than that prescribed in Water Quality Control Plans (Basin Plans). The Basin Plan states that; "The numerical and narrative water quality objectives define the least stringent standards that the Regional Board will apply to regional waters in order to protect the beneficial uses." This Order contains Receiving Water Limitations based on the Basin Plan numerical and narrative water quality objectives for Biostimulatory Substances, Chemical Constituents, Color, Dissolved Oxygen, Floating Material, Oil and Grease, pH, Pesticides, Radioactivity, Salinity, Sediment, Settleable Material, Suspended Material, Tastes and Odors, Temperature, Toxicity, and Turbidity.
2. **Fecal Coliform:** The South Fork of the Merced River has been designated as having the beneficial use of contact recreation (REC-1). For water bodies designated as having REC-1 as a beneficial use, the Basin Plan includes a water quality objective limiting the "...fecal coliform concentration based on a minimum of not less than five samples for any 30-day period..." to a maximum geometric mean of 200 MPN/100 ml. The objective also states that "...[no] more than ten percent of the total number of samples taken during any 30-day period [shall] exceed 400/100 ml." This objective is included in the Order as a receiving water limitation.
3. **Dissolved Oxygen:** The South Fork of the Merced River has been designated as having the beneficial use of cold freshwater aquatic habitat (COLD). For water bodies designated as having COLD as a beneficial use, the Basin Plan includes a water quality objective of maintaining a minimum of 7.0 mg/L of dissolved oxygen. Since the beneficial use of COLD does apply to the South Fork of the Merced River, a receiving water limitation of 7.0 mg/L for dissolved oxygen was included in the Order.

For surface water bodies outside of the Delta, the Basin Plan includes the water quality objective that "...the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation." This objective was included as a receiving water limitation in the Order.

4. **pH:** For all surface water bodies in the Sacramento River and San Joaquin River basins, the Basin Plan includes water quality objectives stating that "[t]he pH shall not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters with designated COLD or WARM beneficial uses." The Order includes receiving water limitations for both pH range and pH change.

The Basin Plan allows an appropriate averaging period for pH change in the receiving stream. Since there is no technical information available that indicates that aquatic organisms are adversely affected by shifts in pH within the 6.5 to 8.5 range, an averaging period is considered appropriate and a monthly averaging period for determining compliance with the 0.5 receiving water pH limitation is included in the Order.

5. **Temperature:** The South Fork of the Merced River has the beneficial uses of both COLD and WARM. The Basin Plan includes the objective that "[a]t no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature." The Order includes a receiving water limitation based on this objective.

6. **Turbidity:** The Basin Plan includes the following objective: *“Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:*
 - a. Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU.
 - b. Where natural turbidity is between 5 and 10 NTUs, increases shall not exceed 20 percent.
 - c. Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTU.
 - c. Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.”

B. Groundwater

1. The Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin, Fourth Edition (hereafter Basin Plan) designates beneficial uses, establishes narrative and numerical water quality objectives, and contains implementation plans and policies for protecting all waters of the Basin. The Basin Plan includes plans and policies of the State Board incorporated by reference. Pursuant to Section 13263(a) of the CWC, waste discharge requirements must implement the Basin Plan and, by extension, the beneficial uses of surface and groundwaters potentially affected by the discharge.
2. The Basin Plan designates the beneficial uses of groundwater in the discharge area as MUN, AGR, IND, and PRO.
3. There is discharge to underlying groundwater from the discharge of reclaimed water on the Wawona Golf Course. Reclaimed water is blended with water from the South Fork of the Merced River and used to irrigate the golf course. The characteristics of the reclaimed water are unknown because effluent is blended with river water prior to discharge. However, it is unlikely that the discharge will cause an impact on underlying groundwater because the discharge is diluted with river water and an appreciable amount of snowmelt is also discharged to underlying groundwater, further diluting the reclaimed water discharge.
4. The following Groundwater Limitation in this Order is based on the State Antidegradation Policy, State Board Resolution No. 68-16: Neither the WWTF nor the recycling of wastewater shall cause underlying groundwater to contain waste constituents in concentrations greater than background water quality unaffected by waste sources.

VI. MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this WWTF.

A. Influent Monitoring

The influent monitoring in the Monitoring and Reporting Program is required to determine compliance with TBELs for BOD and TSS. The influent monitoring required by this Order is identical to the influent monitoring required by Order No. 99-137.

B. Effluent Monitoring

The effluent monitoring in the Monitoring and Reporting Program is required to determine compliance with the TBELs, Effluent Limitations, and Discharge Specifications in this Order. Much of the required monitoring is carried over from Order No. 99-137. The following are changes from Order No. 99-137's monitoring and reporting program:

1. **Detected Priority Pollutants:** Annual monitoring is required for the following priority pollutants that have been detected in the effluent, but for which there is insufficient information available to assign effluent limitations: dichlorobromomethane, chloroform, and methyl chloride. Normally, effluent monitoring is assigned just prior to discharge to the receiving water. However, internal monitoring locations may be established to allow detection of a pollutant when a waste stream is significantly diluted (40 CFR 122.45(h)). WWTF effluent is diluted with river water in the storage tanks prior to discharging to the South Fork of the Merced River. Therefore, internal monitoring for dichlorobromomethane, chloroform, and methyl chloride is established in this Order.
2. **Priority Pollutants:** Order No. 99-137 required annual monitoring of priority pollutants with the option to discontinue after two monitoring events. Effluent priority pollutant monitoring is required once during the term of this Order. Priority pollutant monitoring is required by Section 1.3 of the SIP. Internal monitoring for priority pollutants is established in this Order in accordance with 40 CFR 122.45(h).
3. **Copper Monitoring:** Copper monitoring is required monthly during discharge to the South Fork of the Merced River to determine compliance with interim and final effluent limitations. Final discharge monitoring and internal monitoring for copper are established in this Order in accordance with 40 CFR 122.45(h).

C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity:** Chapter III of the Basin Plan, establishes narrative toxicity water quality objectives and requires that at a minimum compliance with this objective shall be evaluated with a 96-hour bioassay. Order No. 99-137 required quarterly acute toxicity monitoring. This Order requires annual acute toxicity testing that implements requirements of the Basin Plan.
2. **Chronic Toxicity:** Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, the Discharger will be required to conduct chronic toxicity testing in order to determine reasonable potential and establish WQBELs as necessary. Order No. 99-137 required monthly monitoring for chronic toxicity. This Order requires one chronic toxicity monitoring event to take place during the first discharge to the South Fork of the Merced River during the term of this Order.

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring upstream and downstream of Discharge 001 is required to determine the impacts of the discharge on the receiving waters and also to monitor background levels of pollutants. Much of the required receiving water monitoring is carried over from Order No. 99-137. The following are major changes from Order No. 99-137's receiving water monitoring and reporting program:

- **Priority Pollutants:** Receiving water priority pollutant monitoring is required once during the term of this Order. Priority pollutant monitoring is required by Section 1.3 of the SIP.

- **Copper Monitoring:** Monthly receiving water monitoring for copper is required when discharging the South Fork of the Merced River to determine the effects of the discharge on the receiving waters.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. **Sludge Monitoring:** Annual sludge monitoring for metals is required by this Order. The required sludge monitoring under this Order is identical to the monitoring required by Order No. 99-137.
2. **Water Supply Monitoring:** The required water supply monitoring under this Order is identical to the monitoring required by Order No. 99-137.
3. **Filtration Rate Monitoring:** Filtration rate monitoring is required to determine compliance with the maximum filtration rate effluent limitation and discharge specification.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which in accordance with 40 CFR §§122.41 and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

40 CFR Section 122.41(a) through 122.41(n) establishes conditions that apply to all NPDES permits. In accordance with 40 CFR Section 122.41, all conditions applicable to NPDES permits are to be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR Section 123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with Section 123.25, this Order omits Federal conditions that address enforcement authority specified in 40 CFR Sections 122.41(a)(2), 122.41(a)(3), 122.41(j)(5), and 122.41(k)(2) because enforcement authority under the CWC is more stringent. In accordance with 40 CFR Section 122.41, this Order includes a specific citation to Sections 13385, 13386, and 13387 of the CWC that incorporates the Regional Board's enforcement authority by reference.

2. Regional Board Standard Provisions

The Regional Board adopted "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)," dated February 2004. The provisions required in this section of the Order together with the Federal Standard Provisions contained in Attachment D fully incorporate the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)," dated February 2004.

B. Monitoring and Reporting Program Requirements

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program in Attachment E of this Order establishes monitoring and reporting requirements to implement federal and State requirements.

C. Special Provisions

1. Reopener Provisions

- a. **Provision VI.C.1.a, Reopener Provision.** This provision allows the Regional Board to reopen this Order to include any newly adopted receiving water standards.
- b. **Provision VI.C.1.b, Chronic Toxicity Reopener Provision.** If the chronic toxicity testing specified in Section VI.C.2 indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, this Order shall be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic toxicity water quality objective is adopted by the State Board, this Order may be reopened and a limitation based on that objective included.
- c. **Provision VI.C.1.c, Studies/Monitoring Reopener Provision.** This provision allows the Regional Board to reopen this Order if review of the study results specified in Section VI.C.2 of this Order or any effluent monitoring show that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective.

2. Special Studies and Additional Monitoring Requirements

- a. **Provision VI.C.2.a, Toxicity Monitoring.** In accordance with Section 4 of the SIP, this provision requires the Discharger to conduct additional studies to evaluate toxicity in the discharge and eventually reduce that toxicity (Toxicity Identification Evaluation (TIE) and Toxicity Reduction Evaluation (TRE)) if chronic toxicity monitoring indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity. This Provision also allows the Order to be re-opened should the data gathered indicate the need for toxicity limitations.
- b. **Provision VI.C.2.b, Priority Pollutants.** According to Section 1.2 of the SIP, the Discharger must report data for all the priority pollutants listed in the CTR. The data are used to determine reasonable potential for these constituents to cause or contribute to an exceedance of applicable water quality criteria and to calculate effluent limitations. On February 27, 2001 the Discharger was directed to conduct a receiving water and effluent monitoring study in accordance with the SIP. The Discharger sampled the effluent for most priority pollutants, but has not sampled the receiving water. Provision VI.C.2.b of this Order requires the Discharger to provide priority pollutant data for the effluent and receiving water.
- c. **Provision VI.C.2.c, Dioxin Monitoring.** According to Section 3 of the SIP, the Discharger must determine dioxin toxic equivalents by analyzing their effluent for the 17 congeners listed in Table 4, Section 3, of the SIP. On February 27, 2001 the Discharger was directed to conduct an effluent dioxin monitoring study in accordance with the SIP. The Discharger has not conducted the dioxin compounds monitoring study. Provision VI.C.2.c of this Order requires the Discharger to provide effluent dioxin compounds monitoring data.

3. Best Management Practices and Pollution Prevention

Stormwater Requirements. Stormwater discharges from the Facility are not required to be regulated under the General Permit for Discharges of Storm Water Associated with Industrial Activities (State Water Resources Control Board, Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001) because the design flow rate is less than 1 mgd.

4. Compliance Schedules

Provision VI.C.4, Compliance Schedule and Infeasibility Study. The SIP, Section 2.1, provides that: "Based on an existing discharger's request and demonstration that it is infeasible for the discharger to achieve immediate compliance with a CTR criterion, or with an effluent limitation based on a CTR criterion, the RWQCB may establish a compliance schedule in an NPDES permit." Section 2.1 further states that compliance schedules may be included in NPDES permits provided that the following justification has been submitted:..."(a) documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream; (b) documentation of source control and/or pollution minimization efforts currently underway or completed; (c) a proposal for additional or future source control measures, pollutant minimization actions, or waste treatment (i.e., facility upgrades); and (d) a demonstration that the proposed schedule is as short as practicable." This Order requires the Discharger to provide this information. The new water quality-based effluent limitations for copper become effective on **1 January 2006** if a compliance schedule justification is not completed and submitted by the Discharger to the Regional Board. Otherwise, final water quality-based effluent limitations for copper become effective in the shortest time possible as approved by the Executive Officer, but in no case later than **21 October 2010**.

5. Construction, Operation, and Maintenance Specifications

- a. **Provision VI.C.5.a.ii, Surface Water Discharge Minimization.** This Provision requires that the Discharger maximize reclamation, and only discharge to the South Fork of the Merced River when irrigation of the golf course is not necessary (snow or saturated soil conditions) and storage capacity has been reached. This Provision is consistent with Basin Plan and California Water Code requirements to utilize reclamation prior to other wastewater discharge options.
- b. **Provision VI.C.5.a.iv, Chlorine Disinfection.** DHS statewide reclamation criteria contained in Title 22, section 60301.230, of the California Code of Regulations requires that the chlorine disinfection process following filtration provide a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow. Provision VI.C.5.a.iv establishes minimum CT and modal contact time operation specifications based on DHS reclamation criteria.

6. Special Provisions for Municipal Facilities (POTWs Only)

- a. **Provision VI.C.6.a, Sanitary Sewer Overflow Requirements:**

The chief causes of sanitary sewer overflows include lack of maintenance, blockages due to grease, roots, and debris, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm water or groundwater inflow/infiltration, insufficient capacity, and contractor caused blockages.

Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Sanitary sewer overflows can cause exceedance of applicable water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.

The Discharger is responsible for all necessary steps to adequately maintain and operate its sanitary sewer collection system. This Order requires the Discharger to prepare and implement a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Central Valley Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Wawona Wastewater Treatment Facility. As a step in the WDR adoption process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Board has notified the permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following: Posting a Notice of Public Hearing at the Mariposa County Board of Supervisors Chamber, local post office, and the Facility on 2 September 2005.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Officer at the Regional Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on 3 October 2005

C. Public Hearing

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: 20/21 October 2005
Time: 8:30 a.m.
Location: Regional Water Quality Control Board
11020 Sun Center Dr #200
Rancho Cordova, CA 95670

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <http://www.waterboards.ca.gov/centralvalley/>, where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Board by calling (559) 445-5116.

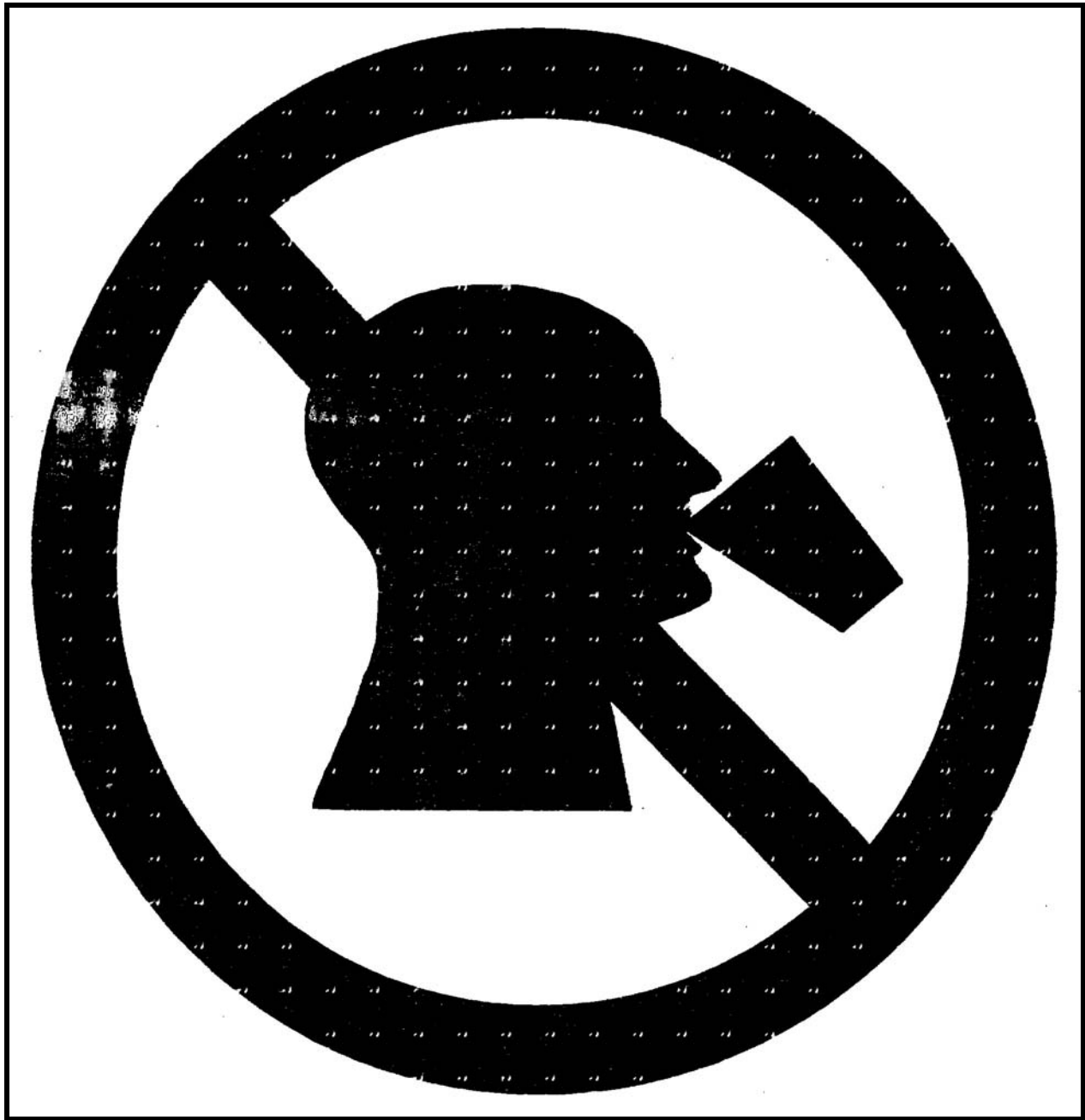
F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this Facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Geoffrey Anderson at (559) 445-5919.

ATTACHMENT G – RECLAIMED WATER SIGNAGE



ATTACHMENT H – CTR MONITORING

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/L or noted) (1)	Criterion Quantitation Limit (ug/L or noted)	Suggested Test Methods
VOLATILE ORGANICS						
28	1,1-Dichloroethane	75343	Primary MCL	5	0.5	EPA 8260B
30	1,1-Dichloroethene	75354	National Toxics Rule	0.057	0.5	EPA 8260B
41	1,1,1-Trichloroethane	71556	Primary MCL	200	0.5	EPA 8260B
42	1,1,2-Trichloroethane	79005	National Toxics Rule	0.6	0.5	EPA 8260B
37	1,1,2,2-Tetrachloroethane	79345	National Toxics Rule	0.17	0.5	EPA 8260B
75	1,2-Dichlorobenzene	95501	Taste & Odor	10	0.5	EPA 8260B
29	1,2-Dichloroethane	107062	National Toxics Rule	0.38	0.5	EPA 8260B
	cis-1,2-Dichloroethene	156592	Primary MCL	6	0.5	EPA 8260B
31	1,2-Dichloropropane	78875	Calif. Toxics Rule	0.52	0.5	EPA 8260B
101	1,2,4-Trichlorobenzene	120821	Public Health Goal	5	0.5	EPA 8260B
76	1,3-Dichlorobenzene	541731	Taste & Odor	10	0.5	EPA 8260B
32	1,3-Dichloropropene	542756	Primary MCL	0.5	0.5	EPA 8260B
77	1,4-Dichlorobenzene	106467	Primary MCL	5	0.5	EPA 8260B
17	Acrolein	107028	Aquatic Toxicity	21	5	EPA 8260B
18	Acrylonitrile	107131	National Toxics Rule	0.059	2	EPA 8260B
19	Benzene	71432	Primary MCL	1	0.5	EPA 8260B
20	Bromoform	75252	Calif. Toxics Rule	4.3	0.5	EPA 8260B
34	Bromomethane	74839	Calif. Toxics Rule	48	1	EPA 8260B
21	Carbon tetrachloride	56235	National Toxics Rule	0.25	0.5	EPA 8260B
22	Chlorobenzene (mono chlorobenzene)	108907	Taste & Odor	50	0.5	EPA 8260B
24	Chloroethane	75003	Taste & Odor	16	0.5	EPA 8260B
25	2- Chloroethyl vinyl ether	110758	Aquatic Toxicity	122 (3)	1	EPA 8260B
26	Chloroform	67663	OEHHA Cancer Risk	1.1	0.5	EPA 8260B
35	Chloromethane	74873	USEPA Health Advisory	3	0.5	EPA 8260B

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23	Dibromochloromethane	124481	Calif. Toxics Rule	0.41	0.5	EPA 8260B
27	Dichlorobromomethane	75274	Calif. Toxics Rule	0.56	0.5	EPA 8260B
36	Dichloromethane	75092	Calif. Toxics Rule	4.7	0.5	EPA 8260B
33	Ethylbenzene	100414	Taste & Odor	29	0.5	EPA 8260B
88	Hexachlorobenzene	118741	Calif. Toxics Rule	0.00075	1	EPA 8260B
89	Hexachlorobutadiene	87683	National Toxics Rule	0.44	1	EPA 8260B
91	Hexachloroethane	67721	National Toxics Rule	1.9	1	EPA 8260B
94	Naphthalene	91203	USEPA IRIS	14	10	EPA 8260B
38	Tetrachloroethene	127184	National Toxics Rule	0.8	0.5	EPA 8260B
39	Toluene	108883	Taste & Odor	42	0.5	EPA 8260B
40	trans-1,2-Dichloroethylene	156605	Primary MCL	10	0.5	EPA 8260B
43	Trichloroethene	79016	National Toxics Rule	2.7	0.5	EPA 8260B
44	Vinyl chloride	75014	Primary MCL	0.5	0.5	EPA 8260B
	Methyl-tert-butyl ether (MTBE)	1634044	Secondary MCL	5	0.5	EPA 8260B
	Trichlorofluoromethane	75694	Primary MCL	150	5	EPA 8260B
	1,1,2-Trichloro-1,2,2-Trifluoroethane	76131	Primary MCL	1200	10	EPA 8260B
	Styrene	100425	Taste & Odor	11	0.5	EPA 8260B
	Xylenes	1330207	Taste & Odor	17	0.5	EPA 8260B
SEMI-VOLATILE ORGANICS						
60	1,2-Benzanthracene	56553	Calif. Toxics Rule	0.0044	5	EPA 8270C
85	1,2-Diphenylhydrazine	122667	National Toxics Rule	0.04	1	EPA 8270C
45	2-Chlorophenol	95578	Taste and Odor	0.1	2	EPA 8270C
46	2,4-Dichlorophenol	120832	Taste and Odor	0.3	1	EPA 8270C
47	2,4-Dimethylphenol	105679	Calif. Toxics Rule	540	2	EPA 8270C
49	2,4-Dinitrophenol	51285	National Toxics Rule	70	5	EPA 8270C
82	2,4-Dinitrotoluene	121142	National Toxics Rule	0.11	5	EPA 8270C
55	2,4,6-Trichlorophenol	88062	Taste and Odor	2	10	EPA 8270C

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83	2,6-Dinitrotoluene	606202	USEPA IRIS	0.05	5	EPA 8270C
50	2-Nitrophenol	25154557	Aquatic Toxicity	150 (5)	10	EPA 8270C
71	2-Chloronaphthalene	91587	Aquatic Toxicity	1600 (6)	10	EPA 8270C
78	3,3'-Dichlorobenzidine	91941	National Toxics Rule	0.04	5	EPA 8270C
62	3,4-Benzofluoranthene	205992	Calif. Toxics Rule	0.0044	10	EPA 8270C
52	4-Chloro-3-methylphenol	59507	Aquatic Toxicity	30	5	EPA 8270C
48	4,6-Dinitro-2-methylphenol	534521	National Toxics Rule	13.4	10	EPA 8270C
51	4-Nitrophenol	100027	USEPA Health Advisory	60	5	EPA 8270C
69	4-Bromophenyl phenyl ether	101553	Aquatic Toxicity	122	10	EPA 8270C
72	4-Chlorophenyl phenyl ether	7005723	Aquatic Toxicity	122 (3)	5	EPA 8270C
56	Acenaphthene	83329	Taste and Odor	20	1	EPA 8270C
57	Acenaphthylene	208968	No Criteria Available		10	EPA 8270C
58	Anthracene	120127	Calif. Toxics Rule	9,600	10	EPA 8270C
59	Benzidine	92875	National Toxics Rule	0.00012	5	EPA 8270C
61	Benzo(a)pyrene (3,4-Benzopyrene)	50328	Calif. Toxics Rule	0.0044	0.1	EPA 8270C
63	Benzo(g,h,i)perylene	191242	No Criteria Available		5	EPA 8270C
64	Benzo(k)fluoranthene	207089	Calif. Toxics Rule	0.0044	2	EPA 8270C
65	Bis(2-chloroethoxy) methane	111911	No Criteria Available		5	EPA 8270C
66	Bis(2-chloroethyl) ether	111444	National Toxics Rule	0.031	1	EPA 8270C
67	Bis(2-chloroisopropyl) ether	39638329	Aquatic Toxicity	122 (3)	10	EPA 8270C
68	Bis(2-ethylhexyl) phthalate	117817	National Toxics Rule	1.8	3	EPA 8270C
70	Butyl benzyl phthalate	85687	Aquatic Toxicity	3 (7)	10	EPA 8270C
73	Chrysene	218019	Calif. Toxics Rule	0.0044	5	EPA 8270C
81	Di-n-butylphthalate	84742	Aquatic Toxicity	3 (7)	10	EPA 8270C
84	Di-n-octylphthalate	117840	Aquatic Toxicity	3 (7)	10	EPA 8270C
74	Dibenzo(a,h)-anthracene	53703	Calif. Toxics Rule	0.0044	0.1	EPA 8270C
79	Diethyl phthalate	84662	Aquatic Toxicity	3 (7)	2	EPA 8270C
80	Dimethyl phthalate	131113	Aquatic Toxicity	3 (7)	2	EPA 8270C
86	Fluoranthene	206440	Calif. Toxics Rule	300	10	EPA 8270C

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87	Fluorene	86737	Calif. Toxics Rule	1300	10	EPA 8270C
90	Hexachlorocyclopentadiene	77474	Taste and Odor	1	1	EPA 8270C
92	Indeno(1,2,3-c,d)pyrene	193395	Calif. Toxics Rule	0.0044	0.05	EPA 8270C
93	Isophorone	78591	National Toxics Rule	8.4	1	EPA 8270C
98	N-Nitrosodiphenylamine	86306	National Toxics Rule	5	1	EPA 8270C
96	N-Nitrosodimethylamine	62759	National Toxics Rule	0.00069	5	EPA 8270C
97	N-Nitrosodi-n-propylamine	621647	Calif. Toxics Rule	0.005	5	EPA 8270C
95	Nitrobenzene	98953	National Toxics Rule	17	10	EPA 8270C
53	Pentachlorophenol	87865	Calif. Toxics Rule	0.28	0.2	EPA 8270C
99	Phenanthrene	85018	No Criteria Available		5	EPA 8270C
54	Phenol	108952	Taste and Odor	5	1	EPA 8270C
100	Pyrene	129000	Calif. Toxics Rule	960	10	EPA 8270C
INORGANICS						
	Aluminum	7429905	Ambient Water Quality	87	50	EPA 6020/200.8
1	Antimony	7440360	Primary MCL	6	5	EPA 6020/200.8
2	Arsenic	7440382	Ambient Water Quality	0.018	1	EPA 1632
15	Asbestos	1332214	National Toxics Rule/ Primary MCL	7 MFL	0.2 MFL >10um	EPA/600/R-93/116(PCM)
	Barium	7440393	Basin Plan Objective	100	100	EPA 6020/200.8
3	Beryllium	7440417	Primary MCL	4	1	EPA 6020/200.8
4	Cadmium	7440439	Public Health Goal	0.07	0.25	EPA 1638/200.8
5a	Chromium (total)	7440473	Primary MCL	50	2	EPA 6020/200.8
5b	Chromium (VI)	18540299	Public Health Goal	0.2	5	EPA 7199/ 1636
6	Copper	7440508	National Toxics Rule	4.1 (2)	0.5	EPA 6020/200.8
14	Cyanide	57125	National Toxics Rule	5.2	5	EPA 9012A
	Fluoride	7782414	Public Health Goal	1000	100	EPA 300
	Iron	7439896	Secondary MCL	300	100	EPA 6020/200.8

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7	Lead	7439921	Calif. Toxics Rule	0.92 (2)	0.5	EPA 1638
8	Mercury	7439976	TMDL Development		0.0005 (11)	EPA 1669/1631
	Manganese	7439965	Secondary MCL/ Basin Plan Objective	50	20	EPA 6020/200.8
9	Nickel	7440020	Calif. Toxics Rule	24 (2)	5	EPA 6020/200.8
10	Selenium	7782492	Calif. Toxics Rule	5 (8)	5	EPA 6020/200.8
11	Silver	7440224	Calif. Toxics Rule	0.71 (2)	1	EPA 6020/200.8
12	Thallium	7440280	National Toxics Rule	1.7	1	EPA 6020/200.8
	Tributyltin	688733	Ambient Water Quality	0.063	0.06	EV-024/025
13	Zinc	7440666	Calif. Toxics Rule/ Basin Plan Objective	54/ 16 (2)	10	EPA 6020/200.8
PESTICIDES - PCBs						
110	4,4'-DDD	72548	Calif. Toxics Rule	0.00083	0.02	EPA 8081A
109	4,4'-DDE	72559	Calif. Toxics Rule	0.00059	0.01	EPA 8081A
108	4,4'-DDT	50293	Calif. Toxics Rule	0.00059	0.01	EPA 8081A
112	alpha-Endosulfan	959988	National Toxics Rule	0.056 (9)	0.02	EPA 8081A
103	alpha-Hexachlorocyclohexane (BHC)	319846	Calif. Toxics Rule	0.0039	0.01	EPA 8081A
	Alachlor	15972608	Primary MCL	2	1	EPA 8081A
102	Aldrin	309002	Calif. Toxics Rule	0.00013	0.005	EPA 8081A
113	beta-Endosulfan	33213659	Calif. Toxics Rule	0.056 (9)	0.01	EPA 8081A
104	beta-Hexachlorocyclohexane	319857	Calif. Toxics Rule	0.014	0.005	EPA 8081A
107	Chlordane	57749	Calif. Toxics Rule	0.00057	0.1	EPA 8081A
106	delta-Hexachlorocyclohexane	319868	No Criteria Available		0.005	EPA 8081A
111	Dieldrin	60571	Calif. Toxics Rule	0.00014	0.01	EPA 8081A
114	Endosulfan sulfate	1031078	Ambient Water Quality	0.056	0.05	EPA 8081A
115	Endrin	72208	Calif. Toxics Rule	0.036	0.01	EPA 8081A
116	Endrin Aldehyde	7421934	Calif. Toxics Rule	0.76	0.01	EPA 8081A
117	Heptachlor	76448	Calif. Toxics Rule	0.00021	0.01	EPA 8081A

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118	Heptachlor Epoxide	1024573	Calif. Toxics Rule	0.0001	0.01	EPA 8081A
105	Lindane (gamma-Hexachlorocyclohexane)	58899	Calif. Toxics Rule	0.019	0.019	EPA 8081A
119	PCB-1016	12674112	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
120	PCB-1221	11104282	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
121	PCB-1232	11141165	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
122	PCB-1242	53469219	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
123	PCB-1248	12672296	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
124	PCB-1254	11097691	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
125	PCB-1260	11096825	Calif. Toxics Rule	0.00017 (10)	0.5	EPA 8082
126	Toxaphene	8001352	Calif. Toxics Rule	0.0002	0.5	EPA 8081A
	Atrazine	1912249	Public Health Goal	0.15	1	EPA 8141A
	Bentazon	25057890	Primary MCL	18	2	EPA 643/ 515.2
	Carbofuran	1563662	CDFG Hazard Assess.	0.5	5	EPA 8318
	2,4-D	94757	Primary MCL	70	10	EPA 8151A
	Dalapon	75990	Ambient Water Quality	110	10	EPA 8151A
	1,2-Dibromo-3-chloropropane (DBCP)	96128	Public Health Goal	0.0017	0.01	EPA 8260B
	Di(2-ethylhexyl)adipate	103231	USEPA IRIS	30	5	EPA 8270C
	Dinoseb	88857	Primary MCL	7	2	EPA 8151A
	Diquat	85007	Ambient Water Quality	0.5	4	EPA 8340/ 549.1/HPLC
	Endothal	145733	Primary MCL	100	45	EPA 548.1
	Ethylene Dibromide	106934	OEHHA Cancer Risk	0.0097	0.02	EPA 8260B/ 504
	Glyphosate	1071836	Primary MCL	700	25	HPLC/ EPA 547
	Methoxychlor	72435	Public Health Goal	30	10	EPA 8081A
	Molinate (Ordram)	2212671	CDFG Hazard Assess.	13	2	EPA 634
	Oxamyl	23135220	Public Health Goal	50	20	EPA 8318/ 632

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	Picloram	1918021	Primary MCL	500	1	EPA 8151A
	Simazine (Princep)	122349	USEPA IRIS	3.4	4	EPA 8141A
	Thiobencarb	28249776	Basin Plan Objective/ Secondary MCL	1	1	HPLC/ EPA 639
16	2,3,7,8-TCDD (Dioxin)	1746016	Calif. Toxics Rule	1.30E-08	5.00E-06	EPA 8290 (HRGC) MS
	2,4,5-TP (Silvex)	93765	Ambient Water Quality	10	1	EPA 8151A
	Diazinon	333415	CDFG Hazard Assess.	0.05	0.25	EPA 8141A/ GCMS
	Chlorpyrifos	2921882	CDFG Hazard Assess.	0.014	1	EPA 8141A/ GCMS
OTHER CONSTITUENTS						
	Ammonia (as N)	7664417	Ambient Water Quality	1500 (4)		EPA 350.1
	Chloride	16887006	Agricultural Use	106,000		EPA 300.0
	Flow			1 CFS		
	Hardness (as CaCO ₃)			5000		EPA 130.2
	Foaming Agents (MBAS)		Secondary MCL	500		SM5540C
	Nitrate (as N)	14797558	Primary MCL	10,000	2,000	EPA 300.0
	Nitrite (as N)	14797650	Primary MCL	1000	400	EPA 300.0
	pH		Basin Plan Objective	6.5-8.5	0.1	EPA 150.1
	Phosphorus, Total (as P)	7723140	USEPA IRIS	0.14		EPA 365.3
	Specific conductance (EC)		Agricultural Use	700 umhos/cm		EPA 120.1
	Sulfate		Secondary MCL	250,000	500	EPA 300.0
	Sulfide (as S)		Taste and Odor	0.029		EPA 376.2
	Sulfite (as SO ₃)		No Criteria Available			SM4500-SO3
	Temperature		Basin Plan Objective	°F		
	Total Dissolved Solids (TDS)		Agricultural Use	450,000		EPA 160.1

FOOTNOTES:

(1) - The Criterion Concentrations serve only as a point of reference for the selection of the appropriate analytical method. They do not indicate a regulatory decision that the cited concentration is either necessary or sufficient for full protection of beneficial uses. Available technology may require that effluent limits be set lower than these values.

(2) - Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed correspond to a total hardness of 40 mg/L.

(3) - For haloethers

(4) - Freshwater aquatic life criteria for ammonia are expressed as a function of pH and temperature of the water body. Values displayed correspond to pH 8.0 and temperature of 22 C.

(5) - For nitrophenols.

(6) - For chlorinated naphthalenes.

(7) - For phthalate esters.

(8) - Basin Plan objective = 2 ug/L for Salt Slough and specific constructed channels in the Grassland watershed.

(9) - Criteria for sum of alpha- and beta- forms.

(10) - Criteria for sum of all PCBs.

(11) - Mercury monitoring shall utilize "ultra-clean" sampling and analytical methods. These methods include:

Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, US EPA; and

Method 1631: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence, US EPA